```
Lys Ile Met Asn His Lys Asn Ser Leu Thr Phe Pro Asp Asp Asn Asp
    290                 295                 300
Ile Ser Lys Glu Ala Lys Asn Leu Ile Cys Ala Phe Leu Thr Asp Arg
305                 310                 315                 320
Glu Val Arg Leu Gly Arg Asn Gly Val Glu Glu Ile Lys Arg His Leu
                325                 330                 335
Phe Phe Lys Asn Asp Gln Trp Ala Trp Glu Thr Leu Arg Asp Thr Val
                340                 345                 350
Ala Pro Val Val Pro Asp Leu Ser Ser Asp Ile Asp Thr Ser Asn Phe
                355                 360                 365
Asp Asp Leu Glu Glu Asp Lys Gly Glu Glu Glu Thr Phe Pro Ile Pro
    370                 375                 380
Lys Ala Phe Val Gly Asn Gln Leu Pro Phe Val Gly Phe Thr Tyr Tyr
385                 390                 395                 400
Ser Asn Arg Arg Tyr Leu Ser Ser Ala Asn Pro Asn Asp Asn Arg Thr
                405                 410                 415
Ser Ser Asn Ala Asp Lys Ser Leu Gln Glu Ser Leu Gln Lys Thr Ile
                420                 425                 430
Tyr Lys Leu Glu Glu Gln Leu His Asn Glu Met Gln Leu Lys Asp Glu
    435                 440                 445
Met Glu Gln Lys Cys Arg Thr Ser Asn Ile Lys Leu Asp Lys Ile Met
    450                 455                 460
Lys Glu Leu Asp Glu Glu Gly Asn Gln Arg Arg Asn Leu Glu Ser Thr
465                 470                 475                 480
Val Ser Gln Ile Glu Lys Glu Lys Met Leu Leu Gln His Arg Ile Asn
                485                 490                 495
Glu Tyr Gln Arg Lys Ala Glu Gln Glu Asn Glu Lys Arg Arg Asn Val
                500                 505                 510
Glu Asn Glu Val Ser Thr Leu Lys Asp Gln Leu Glu Asp Leu Lys Lys
    515                 520                 525
Val Ser Gln Asn Ser Gln Leu Ala Asn Glu Lys Leu Ser Gln Leu Gln
    530                 535                 540
Lys Gln Leu Glu Glu Ala Asn Asp Leu Leu Arg Thr Glu Ser Asp Thr
545                 550                 555                 560
Ala Val Arg Leu Arg Lys Ser His Thr Glu Met Ser Lys Ser Ile Ser
                565                 570                 575
Gln Leu Glu Ser Leu Asn Arg Glu Leu Gln Glu Arg Asn Arg Ile Leu
                580                 585                 590
Glu Asn Ser Lys Ser Gln Thr Asp Lys Asp Tyr Tyr Gln Leu Gln Ala
                595                 600                 605
Ile Leu Glu Ala Glu Arg Arg Asp Arg Gly His Asp Ser Glu Met Ile
    610                 615                 620
Gly Asp Leu Gln Ala Arg Ile Thr Ser Leu Gln Glu Glu Val Lys His
625                 630                 635                 640
Leu Lys His Asn Leu Glu Lys Val Glu Gly Glu Arg Lys Glu Ala Gln
                645                 650                 655
Asp Met Leu Asn His Ser Glu Lys Glu Lys Asn Asn Leu Glu Ile Asp
                660                 665                 670
Leu Asn Tyr Lys Leu Lys Ser Leu Gln Gln Arg Leu Glu Gln Glu Val
    675                 680                 685
Asn Glu His Lys Val Thr Lys Ala Arg Leu Thr Asp Lys His Gln Ser
    690                 695                 700
Ile Glu Glu Ala Lys Ser Val Ala Met Cys Glu Met Glu Lys Lys Leu
705                 710                 715                 720
Lys Glu Glu Arg Glu Ala Arg Glu Lys Ala Glu Asn Arg Val Val Gln
```

```
                          725                   730                   735
Ile Glu Lys Gln Cys Ser Met Leu Asp Val Asp Leu Lys Gln Ser Gln
             740                   745                   750
Gln Lys Leu Glu His Leu Thr Gly Asn Lys Glu Arg Met Glu Asp Glu
             755                   760                   765·
Val Lys Asn Leu Thr Leu Gln Leu Glu Gln Glu Ser Asn Lys Arg Leu
         770                   775                   780
Leu Leu Gln Asn Glu Leu Lys Thr Gln Ala Phe Glu Ala Asp Asn Leu
785                   790                   795                   800
Lys Gly Leu Glu Lys Gln Met Lys Gln Glu Ile Asn Thr Leu Leu Glu
                 805                   810                   815
Ala Lys Arg Leu Leu Glu Phe Glu Leu Ala Gln Leu Thr Lys Gln Tyr
             820                   825                   830
Arg Gly Asn Glu Gly Gln Met Arg Glu Leu Gln Asp Gln Leu Glu Ala
             835                   840                   845
Glu Gln Tyr Phe Ser Thr Leu Tyr Lys Thr Gln Val Lys Glu Leu Lys
         850                   855                   860
Glu Glu Ile Glu Glu Lys Asn Arg Glu Asn Leu Lys Lys Ile Gln Glu
865                   870                   875                   880
Leu Gln Asn Glu Lys Glu Thr Leu Ala Thr Gln Leu Asp Leu Ala Glu
                 885                   890                   895
Thr Lys Ala Glu Ser Glu Gln Leu Ala Arg Gly Leu Leu Glu Glu Gln
             900                   905                   910
Tyr Phe Glu Leu Thr Gln Glu Ser Lys Lys Ala Ala Ser Arg Asn Arg
         915                   920                   925
Gln Glu Ile Thr Asp Lys Asp His Thr Val Ser Arg Leu Glu Glu Ala
         930                   935                   940
Asn Ser Met Leu Thr Lys Asp Ile Glu Ile Leu Arg Arg Glu Asn Glu
945                   950                   955                   960
Glu Leu Thr Glu Lys Met Lys Lys Ala Glu Glu Glu Tyr Lys Leu Glu
                 965                   970                   975
Lys Glu Glu Glu Ile Ser Asn Leu Lys Ala Ala Phe Glu Lys Asn Ile
             980                   985                   990
Asn Thr Glu Arg Thr Leu Lys Thr Gln Ala Val Asn Lys Leu Ala Glu
         995                   1000                  1005
Ile Met Asn Arg Lys Asp Phe Lys Ile Asp Arg Lys Lys Ala Asn Thr
         1010                  1015                  1020
Gln Asp Leu Arg Lys Lys Glu Lys Glu Asn Arg Lys Leu Gln Leu Glu
1025                  1030                  1035                  104
Leu Asn Gln Glu Arg Glu Lys Phe Asn Gln Met Val Val Lys His Gln
             1045                  1050                  1055
Lys Glu Leu Asn Asp Met Gln Ala Gln Leu Val Glu Glu Cys Ala His
             1060                  1065                  1070
Arg Asn Glu Leu Gln Met Gln Leu Ala Ser Lys Glu Ser Asp Ile Glu
         1075                  1080                  1085
Gln Leu Arg Ala Lys Leu Leu Asp Leu Ser Asp Ser Thr Ser Val Ala
         1090                  1095                  1100
Ser Phe Pro Ser Ala Asp Glu Thr Asp Gly Asn Leu Pro Glu Ser Arg
1105                  1110                  1115                  112
Ile Glu Gly Trp Leu Ser Val Pro Asn Arg Gly Asn Ile Lys Arg Tyr
             1125                  1130                  1135
Gly Trp Lys Lys Gln Tyr Val Val Val Ser Ser Lys Lys Ile Leu Phe
             1140                  1145                  1150
Tyr Asn Asp Glu Gln Asp Lys Glu Gln Ser Asn Pro Ser Met Val Leu
             1155                  1160                  1165
```

-121-

Asp Ile Asp Lys Leu Phe His Val Arg Pro Val Thr Gln Gly Asp Val
    1170   1175   1180
Tyr Arg Ala Glu Thr Glu Glu Ile Pro Lys Ile Phe Gln Ile Leu Tyr
1185   1190   1195   120
Ala Asn Glu Gly Glu Cys Arg Lys Asp Val Glu Met Glu Pro Val Gln
                1205   1210   1215
Gln Ala Glu Lys Thr Asn Phe Gln Asn His Lys Gly His Glu Phe Ile
                1220   1225   1230
Pro Thr Leu Tyr His Phe Pro Ala Asn Cys Asp Ala Cys Ala Lys Pro
            1235   1240   1245
Leu Trp His Val Phe Lys Pro Pro Pro Ala Leu Glu Cys Arg Arg Cys
            1250   1255   1260
His Val Lys Cys His Arg Asp His Leu Asp Lys Lys Glu Asp Leu Ile
1265   1270   1275   128
Cys Pro Cys Lys Val Ser Tyr Asp Val Thr Ser Ala Arg Asp Met Leu
                1285   1290   1295
Leu Leu Ala Cys Ser Gln Asp Glu Gln Lys Lys Trp Val Thr His Leu
            1300   1305   1310
Val Lys Lys Ile Pro Lys Asn Pro Pro Ser Gly Phe Val Arg Ala Ser
            1315   1320   1325
Pro Arg Thr Leu Ser Thr Arg Ser Thr Ala Asn Gln Ser Phe Arg Lys
    1330   1335   1340
Val Val Lys Asn Thr Ser Gly Lys Thr Ser
1345   1350

        <210> 159
        <211> 683
        <212> DNA
        <213> Homo Sapiens

        <400> 159
acaagctgga gttcgagcct gacagtgagg acaagatctc ggactgtgag gaaggattga   60
gtaatgtggc acttgaatgc agtgagccaa gcacaagtgt atctgcttat gaccagttga   120
aggcaccggc atccctggt gctggaaacc cacctgggac cccaaaggga aagagagagc   180
tgatgagcaa tggcccaggt tccattattg gtgctaaagc tgggaagaat tctggcaaaa   240
agaagggcct taacaatgaa ctgaacaacc ttccagtaat ctccaacatg acggctgcgt   300
tagacagttg ctcggcagca gacggcagtt tggctgctga gatgcctaaa ctggaagcag   360
aaggattaat tgacaagaaa aatttaggag ataaagaaaa gggcaaaaaa gctaacaact   420
gcaaaacgga caaaaacctc tctaaactga aaagtgcccg gcccattgcc cctgccccag   480
ccccactcc cccgcagcta atcgctatac ccactgcaac ctttacaacg accaccactg   540
ggacaatacc cggactgccc tccctcacaa caactgttgt tcaggctaca ccaaagagtc   600
ctccgttaaa acccattcaa ccaaagccca caattatggg agagcccatc accgtgaacc   660
cagctctggt gtcactcaaa gac   683

        <210> 160
        <211> 227
        <212> PRT
        <213> Homo Sapiens

        <400> 160
Lys Leu Glu Phe Glu Pro Asp Ser Glu Asp Lys Ile Ser Asp Cys Glu
1   5   10   15
Glu Gly Leu Ser Asn Val Ala Leu Glu Cys Ser Glu Pro Ser Thr Ser
                20   25   30
Val Ser Ala Tyr Asp Gln Leu Lys Ala Pro Ala Ser Pro Gly Ala Gly

```
           35                     40                     45
Asn Pro Pro Gly Thr Pro Lys Gly Lys Arg Glu Leu Met Ser Asn Gly
       50                     55                     60
Pro Gly Ser Ile Ile Gly Ala Lys Ala Gly Lys Asn Ser Gly Lys Lys
65                     70                     75                     80
Lys Gly Leu Asn Asn Glu Leu Asn Asn Leu Pro Val Ile Ser Asn Met
                   85                     90                     95
Thr Ala Ala Leu Asp Ser Cys Ser Ala Ala Asp Gly Ser Leu Ala Ala
                  100                    105                    110
Glu Met Pro Lys Leu Glu Ala Glu Gly Leu Ile Asp Lys Lys Asn Leu
              115                    120                    125
Gly Asp Lys Glu Lys Gly Lys Lys Ala Asn Asn Cys Lys Thr Asp Lys
          130                    135                    140
Asn Leu Ser Lys Leu Lys Ser Ala Arg Pro Ile Ala Pro Ala Pro Ala
145                    150                    155                    160
Pro Thr Pro Pro Gln Leu Ile Ala Ile Pro Thr Ala Thr Phe Thr Thr
                  165                    170                    175
Thr Thr Thr Gly Thr Ile Pro Gly Leu Pro Ser Leu Thr Thr Thr Val
          180                    185                    190
Val Gln Ala Thr Pro Lys Ser Pro Pro Leu Lys Pro Ile Gln Pro Lys
      195                    200                    205
Pro Thr Ile Met Gly Glu Pro Ile Thr Val Asn Pro Ala Leu Val Ser
   210                    215                    220
Leu Lys Asp
225
```

```
        <210> 161
        <211> 662
        <212> DNA
        <213> Homo Sapiens

        <400> 161
acccacagca gttgcacttg ctgagcaggc agcttgagga cccaaatggt agcttttcta      60
acgctgagat gagtgaactg agtgtggcac agaaaccaga aaaacttttg gagcgctgca     120
agtactggcc tgcttgtaaa aatggggatg agtgtgccta ccatcacccc atctcaccct     180
gcaaagcctt ccccaattgt aaatttgctg aaaaatgttt gtttgttcac ccaaattgta     240
aatatgatgc aaagtgtact aaaccagatt gtcccttcac tcatgtgagt agaagaattc     300
cagtactgtc tccaaaacca gttgcaccac cagcaccacc ttccagtagt cagctctgcc     360
gttacttccc tgcttgtaag aagatggaat gtcccttcta tcatccaaaa cattgtaggt     420
ttaacactca atgtacaaga ccggactgca cattctacca tcccaccatt aatgtcccac     480
cacgacatgc cttgaaatgg attcgacctc aaaccagcga atagcaccca gtcctgcctg     540
gcagaagatc atgcagttg gaagtttca tgtctgatga aagatctcta cagaacttgt     600
caaatctttg aaacttggaa tatattgctt tcataatatg aaggtttatt ggctatctaa     660
aa                                                                   662
```

```
        <210> 162
        <211> 173
        <212> PRT
        <213> Homo Sapiens

        <400> 162
Pro Gln Gln Leu His Leu Leu Ser Arg Gln Leu Glu Asp Pro Asn Gly
1                  5                     10                     15
Ser Phe Ser Asn Ala Glu Met Ser Glu Leu Ser Val Ala Gln Lys Pro
           20                     25                     30
```

```
Glu Lys Leu Leu Glu Arg Cys Lys Tyr Trp Pro Ala Cys Lys Asn Gly
        35                  40                  45
Asp Glu Cys Ala Tyr His His Pro Ile Ser Pro Cys Lys Ala Phe Pro
    50                  55                  60
Asn Cys Lys Phe Ala Glu Lys Cys Leu Phe Val His Pro Asn Cys Lys
65                  70                  75                  80
Tyr Asp Ala Lys Cys Thr Lys Pro Asp Cys Pro Phe Thr His Val Ser
                85                  90                  95
Arg Arg Ile Pro Val Leu Ser Pro Lys Pro Val Ala Pro Pro Ala Pro
            100                 105                 110
Pro Ser Ser Ser Gln Leu Cys Arg Tyr Phe Pro Ala Cys Lys Lys Met
        115                 120                 125
Glu Cys Pro Phe Tyr His Pro Lys His Cys Arg Phe Asn Thr Gln Cys
    130                 135                 140
Thr Arg Pro Asp Cys Thr Phe Tyr His Pro Thr Ile Asn Val Pro Pro
145                 150                 155                 160
Arg His Ala Leu Lys Trp Ile Arg Pro Gln Thr Ser Glu
                165                 170
```

```
<210> 163
<211> 2912
<212> DNA
<213> Homo Sapiens

<400> 163
cagttgcttc agcgtcccgg tgtggctgtg ccgttggtcc tgtgcggtca cttagccaag     60
atgcctgag aaacccagac ccaagaccaa ccgatggagg aggaggaggt tgagacgttc    120
gcctttcagg cagaaattgc ccagttgatg tcattgatca tcaatacttt ctactcgaac    180
aaagagatct ttctgagaga gctcattttca aattcatcag atgcattgga caaaatccgg    240
tatgaaactt tgacagatcc cagtaaatta gactctggga aagagctgca tattaacctt    300
ataccgaaca aacaagatcg aactctcact attgtggata ctggaattgg aatgaccaag    360
gctgacttga tcaataacct tggtactatc gccaagtctg ggaccaaagc gttcatggaa    420
gctttgcagg ctggtgcaga tatctctatg attggccagt tcggtgttgg tttttattct    480
gcttatttgg ttgctgagaa agtaactgtg atcaccaaac ataacgatga tgagcagtac    540
gcttgggagt cctcagcagg gggatcattc acagtgagga cagacacagg tgaacctatg    600
ggtcgtggaa caaaagttat cctacacctg aaagaagacc aaactgagta cttggaggaa    660
cgaagaataa aggagattgt gaagaaacat tctcagttta ttggatatcc cattactctt    720
tttgtggaga aggaacgtga taaagaagta agcgatgatg aggctgaaga aaaggaagac    780
aaagaagaag aaaaagaaaa agaagagaaa gagtcggaag acaaacctga aattgaagat    840
gttggttctg atgaggaaga agaaaagaag gatggtgaca agaagaagaa gaagaagatt    900
aaggaaaagt acatcgatca agaagagctc aacaaaacaa agcccatctg gaccagaaat    960
cccgacgata ttactaatga ggagtacgga gaattctata gagcttgac caatgactgg   1020
gaagatcact ggcagtgaa gcattttca gttgaaggac agttggaatt cagagcccctt   1080
ctatttgtcc cacgacgtgc tccttttgat ctgtttgaaa acagaaagaa aaagaacaat   1140
atcaaattgt atgtacgcag agttttcatc atggataact gtgaggagct aatccctgaa   1200
tatctgaact tcattagagg ggtggtagac tcggaggatc tccctctaaa catatcccgt   1260
gagatgttgc aacaaagcaa aattttgaaa gttatcagga gaaatttggt caaaaaatgc   1320
ttagaactct ttactgaact ggcggaagat aaagagaact acaagaaatt ctatgagcag   1380
ttctctaaaa acataaagct tggaatacac gaagactctc aaaatcggaa gaagcttttca   1440
gagctgttaa ggtactacac atctgcctct ggtgatgaga tggtttctct caaggactac   1500
tgcaccagaa tgaaggagaa ccagaaacat atctattata tcacaggtga gaccaaggac   1560
caggtagcta actcagcctt tgtggaacgt cttcggaaac atggcttaga agtgatctat   1620
atgattgagc ccattgatga gtactgtgtc aacagctga aggaatttga ggggaagact   1680
ttagtgtcag tcaccaaaga aggcctggaa cttccagagg atgaagaaga gaaaaagaag   1740
caggaagaga aaaaaacaaa gtttgagaac ctctgcaaaa tcatgaaaga catattggag   1800
```

```
aaaaaagttg aaaaggtggt tgtgtcaaac cgattggtga catctccatg ctgtattgtc      1860
acaagcacat atggctggac agcaaacatg gagagaatca tgaaagctca agccctaaga      1920
gacaactcaa caatgggtta catggcagca aagaaacacc tggagataaa ccctgaccat      1980
tccattattg agaccttaag gcaaaaggca gaggctgata agaacgacaa gtctgtgaag      2040
gatctggtca tcttgcttta tgaaactgcg ctcctgtctt ctggcttcag tctggaagat      2100
ccccagacac atgctaacag gatctacagg atgatcaaac ttggtctggg tattgatgaa      2160
gatgacccta ctgctgatga taccagtgct gctgtaactg aagaaatgcc accccttgaa      2220
ggagatgacg acacatcacg catggaagaa gtagactaat ctctggctga gggatgactt      2280
acctgttcag tactctacaa ttcctctgat aatatatttt caaggatgtt tttctttatt      2340
tttgttaata ttaaaaagtc tgtatggcat gacaactact ttaaggggaa gataagattt      2400
ctgtctacta agtgatgctg tgatacctta ggcactaaag cagagctagt aatgcttttt      2460
gagtttcatg ttggttcttt cacagatggg gtaacgtgca ctgtaagacg tatgtaacat      2520
gatgttaact ttgtgtggtc taaagtgttt agctgtcaag ccggatgcct aagtagacca      2580
aatcttgtta ttgaagtgtt ctgagctgta tcttgatgtt tagaaaagta ttcgttacat      2640
cttgtaggat ctactttttg aacttttcat tccctgtagt tgacaattct gcatgtacta      2700
gtcctctaga aataggttaa actgaagcaa cttgatggaa ggatctctcc acagggcttg      2760
ttttccaaag aaaagtattg tttggaggag caaagttaaa agcctaccta agcatatcgt      2820
aaagctgttc aaatactcga gcccagtctt gtggatggaa atgtagtgct cgagtcacat      2880
tctgcttaaa gttgtaacaa atacagatga gt                                    2912
```

```
        <210> 164
        <211> 732
        <212> PRT
        <213> Homo Sapiens

        <400> 164
Met Pro Glu Glu Thr Gln Thr Gln Asp Gln Pro Met Glu Glu Glu
1               5                   10                  15
Val Glu Thr Phe Ala Phe Gln Ala Glu Ile Ala Gln Leu Met Ser Leu
            20                  25                  30
Ile Ile Asn Thr Phe Tyr Ser Asn Lys Glu Ile Phe Leu Arg Glu Leu
        35                  40                  45
Ile Ser Asn Ser Ser Asp Ala Leu Asp Lys Ile Arg Tyr Glu Thr Leu
    50                  55                  60
Thr Asp Pro Ser Lys Leu Asp Ser Gly Lys Glu Leu His Ile Asn Leu
65                  70                  75                  80
Ile Pro Asn Lys Gln Asp Arg Thr Leu Thr Ile Val Asp Thr Gly Ile
                85                  90                  95
Gly Met Thr Lys Ala Asp Leu Ile Asn Asn Leu Gly Thr Ile Ala Lys
            100                 105                 110
Ser Gly Thr Lys Ala Phe Met Glu Ala Leu Gln Ala Gly Ala Asp Ile
        115                 120                 125
Ser Met Ile Gly Gln Phe Gly Val Gly Phe Tyr Ser Ala Tyr Leu Val
    130                 135                 140
Ala Glu Lys Val Thr Val Ile Thr Lys His Asn Asp Asp Glu Gln Tyr
145                 150                 155                 160
Ala Trp Glu Ser Ser Ala Gly Gly Ser Phe Thr Val Arg Thr Asp Thr
                165                 170                 175
Gly Glu Pro Met Gly Arg Gly Thr Lys Val Ile Leu His Leu Lys Glu
            180                 185                 190
Asp Gln Thr Glu Tyr Leu Glu Glu Arg Arg Ile Lys Glu Ile Val Lys
        195                 200                 205
Lys His Ser Gln Phe Ile Gly Tyr Pro Ile Thr Leu Phe Val Glu Lys
    210                 215                 220
Glu Arg Asp Lys Glu Val Ser Asp Asp Glu Ala Glu Glu Lys Glu Asp
```

```
225                     230                     235                     240
Lys Glu Glu Glu Lys Glu Lys Glu Glu Lys Glu Ser Glu Asp Lys Pro
                    245                     250                     255
Glu Ile Glu Asp Val Gly Ser Asp Glu Glu Glu Glu Lys Lys Asp Gly
                260                     265                     ·270
Asp Lys Lys Lys Lys Lys Ile Lys Glu Lys Tyr Ile Asp Gln Glu
            275                     280                     285
Glu Leu Asn Lys Thr Lys Pro Ile Trp Thr Arg Asn Pro Asp Asp Ile
        290                     295                     300
Thr Asn Glu Glu Tyr Gly Glu Phe Tyr Lys Ser Leu Thr Asn Asp Trp
305                     310                     315                     320
Glu Asp His Leu Ala Val Lys His Phe Ser Val Glu Gly Gln Leu Glu
                325                     330                     335
Phe Arg Ala Leu Leu Phe Val Pro Arg Arg Ala Pro Phe Asp Leu Phe
            340                     345                     350
Glu Asn Arg Lys Lys Lys Asn Asn Ile Lys Leu Tyr Val Arg Arg Val
        355                     360                     365
Phe Ile Met Asp Asn Cys Glu Glu Leu Ile Pro Glu Tyr Leu Asn Phe
    370                     375                     380
Ile Arg Gly Val Val Asp Ser Glu Asp Leu Pro Leu Asn Ile Ser Arg
385                     390                     395                     400
Glu Met Leu Gln Gln Ser Lys Ile Leu Lys Val Ile Arg Lys Asn Leu
                405                     410                     415
Val Lys Lys Cys Leu Glu Leu Phe Thr Glu Leu Ala Glu Asp Lys Glu
            420                     425                     430
Asn Tyr Lys Lys Phe Tyr Glu Gln Phe Ser Lys Asn Ile Lys Leu Gly
            435                     440                     445
Ile His Glu Asp Ser Gln Asn Arg Lys Lys Leu Ser Glu Leu Leu Arg
        450                     455                     460
Tyr Tyr Thr Ser Ala Ser Gly Asp Glu Met Val Ser Leu Lys Asp Tyr
465                     470                     475                     480
Cys Thr Arg Met Lys Glu Asn Gln Lys His Ile Tyr Tyr Ile Thr Gly
                485                     490                     495
Glu Thr Lys Asp Gln Val Ala Asn Ser Ala Phe Val Glu Arg Leu Arg
            500                     505                     510
Lys His Gly Leu Glu Val Ile Tyr Met Ile Glu Pro Ile Asp Glu Tyr
        515                     520                     525
Cys Val Gln Gln Leu Lys Glu Phe Glu Gly Lys Thr Leu Val Ser Val
    530                     535                     540
Thr Lys Glu Gly Leu Glu Leu Pro Glu Asp Glu Glu Glu Lys Lys Lys
545                     550                     555                     560
Gln Glu Glu Lys Lys Thr Lys Phe Glu Asn Leu Cys Lys Ile Met Lys
                565                     570                     575
Asp Ile Leu Glu Lys Lys Val Glu Lys Val Val Val Ser Asn Arg Leu
            580                     585                     590
Val Thr Ser Pro Cys Cys Ile Val Thr Ser Thr Tyr Gly Trp Thr Ala
        595                     600                     605
Asn Met Glu Arg Ile Met Lys Ala Gln Ala Leu Arg Asp Asn Ser Thr
    610                     615                     620
Met Gly Tyr Met Ala Ala Lys Lys His Leu Glu Ile Asn Pro Asp His
625                     630                     635                     640
Ser Ile Ile Glu Thr Leu Arg Gln Lys Ala Glu Ala Asp Lys Asn Asp
            645                     650                     655
Lys Ser Val Lys Asp Leu Val Ile Leu Leu Tyr Glu Thr Ala Leu Leu
        660                     665                     670
```

```
Ser Ser Gly Phe Ser Leu Glu Asp Pro Gln Thr His Ala Asn Arg Ile
        675             680             685
Tyr Arg Met Ile Lys Leu Gly Leu Gly Ile Asp Glu Asp Asp Pro Thr
    690             695             700
Ala Asp Asp Thr Ser Ala Ala Val Thr Glu Glu Met Pro Pro Leu Glu
705             710             715             720
Gly Asp Asp Asp Thr Ser Arg Met Glu Glu Val Asp
                725             730
```

```
        <210> 165
        <211> 790
        <212> DNA
        <213> Homo Sapiens

        <400> 165
ccgactcaga aatggcggcc tccatgttct acggcaggct agtggccgtg gccacccttc    60
ggaaccaccg gcctcggacg gcccagcggg ctgctgctca ggttctggga agttctggat   120
tgtttaataa ccatggactc caagtacagc agcaacagca aaggaatctc tcactacatg   180
aatacatgag tatggaatta ttgcaagaag ctggtgtctc cgttcccaaa ggatatgtgg   240
caaagtcacc agatgaagct tatgcaattg ccaaaaaatt aggttcaaaa gatgtcgtga   300
taaaggcaca ggttttagct ggtggtagag gaaaaggaac atttgaaagt ggcctcaaag   360
gaggagtgaa gatagttttc tctccagaag aagcaaaagc tgtttcttca caaatgattg   420
ggaaaaaatt gtttaccaag caaacgggag aaaagggcag aatatgcaat caagtattgg   480
tctgtgagcg aaaatatccc aggagagaat actactttgc aataacaatg gaaaggtcat   540
ttcaaggtcc tgtattaata ggaagttcac atggtggtgt caacattgaa gatgttgctg   600
ctgagtctcc tgaagcaata attaaagaac ctattgatat tgaagaaggc atcaaaaagg   660
aacaagctct tcagcttgca cagaagaatg ggatttcccc taatattgng ggaatcagca   720
gcaggaaaac atggtcaagc tttacagncn ttttcttgaa atacgatgca acccttgata   780
ggaaattaaa                                                          790
```

```
        <210> 166
        <211> 259
        <212> PRT
        <213> Homo Sapiens

        <400> 166
Asp Ser Glu Met Ala Ala Ser Met Phe Tyr Gly Arg Leu Val Ala Val
1               5               10              15
Ala Thr Leu Arg Asn His Arg Pro Arg Thr Ala Gln Arg Ala Ala Ala
            20              25              30
Gln Val Leu Gly Ser Ser Gly Leu Phe Asn Asn His Gly Leu Gln Val
        35              40              45
Gln Gln Gln Gln Arg Asn Leu Ser Leu His Glu Tyr Met Ser Met
    50              55              60
Glu Leu Leu Gln Glu Ala Gly Val Ser Val Pro Lys Gly Tyr Val Ala
65              70              75              80
Lys Ser Pro Asp Glu Ala Tyr Ala Ile Ala Lys Lys Leu Gly Ser Lys
            85              90              95
Asp Val Val Ile Lys Ala Gln Val Leu Ala Gly Gly Arg Gly Lys Gly
            100             105             110
Thr Phe Glu Ser Gly Leu Lys Gly Gly Val Lys Ile Val Phe Ser Pro
    115             120             125
Glu Glu Ala Lys Ala Val Ser Ser Gln Met Ile Gly Lys Lys Leu Phe
    130             135             140
Thr Lys Gln Thr Gly Glu Lys Gly Arg Ile Cys Asn Gln Val Leu Val
```

```
145                    150                    155                    160
Cys Glu Arg Lys Tyr Pro Arg Arg Glu Tyr Tyr Phe Ala Ile Thr Met
                165                    170                    175
Glu Arg Ser Phe Gln Gly Pro Val Leu Ile Gly Ser Ser His Gly Gly
                180                    185                   ·190
Val Asn Ile Glu Asp Val Ala Ala Glu Ser Pro Glu Ala Ile Ile Lys
            195                    200                    205
Glu Pro Ile Asp Ile Glu Glu Gly Ile Lys Lys Glu Gln Ala Leu Gln
        210                    215                    220
Leu Ala Gln Lys Asn Gly Ile Ser Pro Asn Ile Gly Ile Ser Ser Arg
225                    230                    235                    240
Lys Thr Trp Ser Ser Phe Thr Phe Leu Lys Tyr Asp Ala Thr Leu Asp
                245                    250                    255
Arg Lys Leu
```

```
        <210> 167
        <211> 5307
        <212> DNA
        <213> Homo Sapiens

        <400> 167
gaataacagt taagttttgg ggagtaaaaa ctgtttcaat ttttgactgt gttgggggtt         60
ggtgctccta atccctgtgt tgttaaaggg tcgactatat tgtattttttg aaaattgcta       120
gagagtggac gtaaagtgtt ctcactaaac aaattataac tatgtgaggt agtgcatata       180
ttaagtagct agatttggtc attccacaat gtatatgtac ttcaaaacat catgttgtac       240
atgagaaaca cagttttatc tgttagtcag ttttaaaaat aaaaaatatt ccaactagaa       300
actctgttgt agttttttgaa attacaactt ggaggctttg aggaactgat tagaagtctc       360
ctttctgttt caggctttca tatccaaacc atagatcttt agaagtaaca tctgttaatt       420
aattattaat aaatagtttg agtctttatt aattcatgga taacttgacc attttctctc       480
tccttttgct tagataatcc cagatcatgg ccgggcacag tagctcacgc ctgtattccc       540
agcagtttgg gaggccgagg caggcagatc acttgaactc aggagtttga gaccagcttg       600
ggcaacatgg caaaaccctg tctctattaa aaatacaaaa attagctggg catggtagtg       660
catgcctgta gtcccagcta cctgggaggc tgaggtggga ggatcgcttg agcctgggag       720
gttgaggctt ctgtgcgcga tgattgctcc agtgatcacg ccattgcact ccagcctggg       780
tgacagagtg agaccctgtc tccaaaaaaa aaaaaaatta agcaagtagc agttacaaga       840
ccaaaagtta ttttcctttt tttttttctc tataaaattg cccatttgga ccaaatctag       900
ttataactta tttcagtgtc attaagaaag ttgatgaata agtcatatta ctcagatgtt       960
agtagctatg catttattaa tagttttatt tataagtatt tagtttcact ctgttgcaga      1020
ctattttatg ctaaaattag ctaaagccaa attactatttt cttaaaacat attttttttact     1080
tttttttttt ttttaaatat tattaggtac ttcttgcaag ggatatgcat tagcacatac      1140
tcaagaaggg gaagaaaaga agcaaacttc tggtacatca aataccagag gatcaagacg      1200
aaaacctgca atgacaactc ctacaaggag gtctacacgt aacacaagag ctgaaacagc      1260
cagtcagtct cagagatccc caatatcaga caattctggg tgtgatgccc caggtaacag      1320
taatccatct ttaagtgttc cctcttcagc tgagtcagaa aagcaaacaa gacaggctcc      1380
aaaacggaag tctgtaagaa gaggaagaaa accacctttta ctgaaaaaga aacttcggag      1440
ctctgtagct gcccctgaaa aatcatcttc caatgattca gtagatgaag aaacagcaga      1500
atctgacaca tcacctgtgt tagaaaaaga gcaccaacca gatgtagaca gtagtaacat      1560
ttgtactgtg cagactcatg tagaaaacca gtctgctaat tgcttgaaaa gttgcaatga      1620
gcaaatagaa gaaagtgaga agcatactgc aaattatgat acagaggaaa gagtaggatc      1680
ttcatcttct gagtcttgtg ctcaagatct tcctgtgcta gttggtgagg aagggggaagt      1740
taaaaaactc gagaatacag gtatagaggc taatgttttg tgtttggaaa gtgagatttc      1800
tgaaaatatt cttgaaaaag gaggtgatcc attggaaaag caagaccaga tatctggact      1860
ttcacaatca gaggtaaaga cagatgtatg tacagttcat cttccaaatg attttcctac      1920
atgtttaaca tctgaaagca aagtgtacca acctgtatct tgtcccctaa gtgacttatc      1980
```

-128-

```
tgagaatgta gagtcagtgg ttaatgaaga aaaaataaca gagagttccc tagtagaaat   2040
tactgaacat aaagatttta cactaaaaac agaggagctt atagagagcc ccaagttaga   2100
atcttctgag ggtgaaatta tacagacagt ggacagacaa tctgttaaga gcccagaggt   2160
tcaattgctt gggcatgttg aaactgaaga tgtagaaata attgcaacat gtgatacttt   2220
tgggaatgaa gatttcaata atattcaaga ctctgaaaat aacttactaa aaaataatct   2280
tctgaacacc aaaattggaa aatctttaga agaaaagaat gaatcgctga ccgaacatcc   2340
tagatctaca gagttgccta aaacacacat tgaacagatt cagaagcatt ttagtgagga   2400
caacaatgaa atgataccta tggagtgtga ttcattttgc agtgaccaaa atgaatctga   2460
agttgaacca tctgtaaatg ctgatcttaa acaaatgaat gaaaattctg tgacacactg   2520
ttctgaaaat aatatgccgt cttctgatct tgcggatgaa aaggttgaaa ctgtttctca   2580
accatctgaa agcccaaaag ataccataga taaaaccaaa aagcctcgta ctcgaagatc   2640
tagatttcat tctccatcta caacttggtc acccaacaaa gacactccac aagaaaagaa   2700
gcggccccag tctccatctc ccagaagaga aactgggaaa gaaagcagga agtctcaatc   2760
accatctcct aagaatgagt cagccagagg ccggaaaaaa tcccgttctc agtccccaaa   2820
aaaggatatt gcaagagaaa ggaggcaatc tcagtctcgg tctccaaaaa gggatactac   2880
tagggaaagc agaagatctg aatcactgtc cccaagaaga gaaacttcta gagagaacaa   2940
aagatctcag ccaagagtga aagattcttc cccaggagaa aaatccaggt cccagagcag   3000
agaacgagaa agtgatagag atgggcagag gagagagaga gaaaggagaa ccagaaagtg   3060
gtctaggtcc agatctcatt ctaggtcccc ctcaagatgt agaacaaaaa gtaagagttc   3120
atcatttggt agaattgaca gagatagtta ctctccccgg tggaagggaa gatgggcaaa   3180
tgatggttgg agatgtccac gaggaaatga tcggtacaga aagaatgacc cagagaaaca   3240
gaatgaaaat acaagaaaag aaaaaaatga catccatcta gatgctgatg atccaaattc   3300
tgctgacaaa catagaaatg actgtcccaa ttggataaca gaaaaaataa actctgggcc   3360
tgatccaaga accagaaatc cagaaaagtt gaaagagtct cattgggaag aaaatagaaa   3420
tgaaaattca ggaaattctt ggaataaaaa ctttggttct ggttgggtat ctaaccgtgg   3480
tagaggcaga ggcaaccgtg gcagaggcac ttacagaagt agttttgcct ataaagatca   3540
gaatgaaaat cggtggcaaa atcgaaaacc cctctcaggg aattcaaaca gttcagggag   3600
tgaatctttc aagtttgtgg aacagcaatc ctataagcga aaaagtgaac aggagttctc   3660
atttgataca ccagcagata gatctggatg gacatctgca tccagctggg ccgtgagaaa   3720
gactttgcca gcagatgtac aaaactacta ctcacgacga ggcagaaatt cttcaggtcc   3780
acagtctgga tggatgaaac aagaggagga aacatctgga caggattcta gcctaaaaga   3840
ccaaacaaac cagcaagttg atggttctca gctacctata aatatgatgc aaccgcaaat   3900
gaatgtaatg cagcaacaaa tgaatgcaca acaccagcct atgaatatct tcccatatcc   3960
agtgggtgtt catgctcctt tgatgaacat ccaacgcaat ccatttaaca ttcatcctca   4020
gctacccttg catctccaca caggagtgcc cctcatgcag gtagccactc ctaccagtgt   4080
atctcaggga ctaccaccac caccacccccc tcccccacca tcccaacaag tcaactacat   4140
tgcttcacaa ccagatggaa agcaattgca gggtattcct agttcttctc atgtaagtaa   4200
taacatgagt acaccagttt tgcctgctcc gacagcagcc ccaggaaata cgggaatggt   4260
tcagggacca agttctggta atacttcgtc atcaagtcac agcaaagcct ctaatgctgc   4320
tgtaaaattg gcagaaagca aagtaagtgt tgcagtggaa gccagcgcag atagctcgaa   4380
gacagacaag aaattgcaaa ttcaagaaaa agcagcacaa gaggtaaaat tggccatcaa   4440
gccattttac caaaataaag atatcaccaa ggaagaatat aaagaaattg tacggaaagc   4500
agtagataaa gtttgtcata gtaagagtgg agaagtaaat tctactaaag tggcaaatct   4560
ggttaaagcc tatgtagaca aatacaaata ttcacggaag gggagccaaa agaaaactct   4620
ggaagaacct gtgtctactg aaaaaaacat aggctgaaat ggggaacgct gtcaaggaca   4680
ttatcaggat atctgcaaag tgcaatttca acatgtacca ttaactgaaa atcatacata   4740
actgtgattg aaatttggtt ttgataaaat tattttttta acataggata tgatgttttg   4800
ttctaaataa atataggtct gcactgcaac ttctgtatcc ttccttcccc tccaccctcc   4860
cccacaaaat tcaagggaaa gtaaagggtt taaaggaatg tgcatcttta ctaggactgt   4920
gttatagtgt ggatactgga aaatgtatag ctttttgatt agggcaatgg agtgcataaa   4980
ttagaaactt ctaagtgcac tggttttcaa agagatatat ataatgcatt tattctgtca   5040
ggttaaaata taaagtatga tctttatgat ttttttccctc taattataga aagttaaata   5100
atgtattacc atgaaaaatg tttctaatat taaatagaac atatcagttg caaagttcct   5160
aatgtgtatt tttaaagcac atatctgaat aaattgccta gatagaaaaa aaattatcac   5220
gagtaaaatt tagtgttcaa aacattgaaa cactcttcac ctattgtatg accaaataaa   5280
```

ggttatgctg cttgttacgc gaaggcc   5307

```
        <210> 168
        <211> 1148
        <212> PRT
        <213> Homo Sapiens

        <400> 168
Met Thr Thr Pro Thr Arg Arg Ser Thr Arg Asn Thr Arg Ala Glu Thr
 1               5                   10                  15
Ala Ser Gln Ser Gln Arg Ser Pro Ile Ser Asp Asn Ser Gly Cys Asp
            20                  25                  30
Ala Pro Gly Asn Ser Asn Pro Ser Leu Ser Val Pro Ser Ser Ala Glu
            35                  40                  45
Ser Glu Lys Gln Thr Arg Gln Ala Pro Lys Arg Lys Ser Val Arg Arg
        50                  55                  60
Gly Arg Lys Pro Pro Leu Leu Lys Lys Lys Leu Arg Ser Ser Val Ala
65                  70                  75                  80
Ala Pro Glu Lys Ser Ser Ser Asn Asp Ser Val Asp Glu Glu Thr Ala
                85                  90                  95
Glu Ser Asp Thr Ser Pro Val Leu Glu Lys Glu His Gln Pro Asp Val
                100                 105                 110
Asp Ser Ser Asn Ile Cys Thr Val Gln Thr His Val Glu Asn Gln Ser
            115                 120                 125
Ala Asn Cys Leu Lys Ser Cys Asn Glu Gln Ile Glu Glu Ser Glu Lys
        130                 135                 140
His Thr Ala Asn Tyr Asp Thr Glu Glu Arg Val Gly Ser Ser Ser Ser
145                 150                 155                 160
Glu Ser Cys Ala Gln Asp Leu Pro Val Leu Val Gly Glu Glu Gly Glu
                165                 170                 175
Val Lys Lys Leu Glu Asn Thr Gly Ile Glu Ala Asn Val Leu Cys Leu
            180                 185                 190
Glu Ser Glu Ile Ser Glu Asn Ile Leu Glu Lys Gly Gly Asp Pro Leu
        195                 200                 205
Glu Lys Gln Asp Gln Ile Ser Gly Leu Ser Gln Ser Glu Val Lys Thr
    210                 215                 220
Asp Val Cys Thr Val His Leu Pro Asn Asp Phe Pro Thr Cys Leu Thr
225                 230                 235                 240
Ser Glu Ser Lys Val Tyr Gln Pro Val Ser Cys Pro Leu Ser Asp Leu
                245                 250                 255
Ser Glu Asn Val Glu Ser Val Val Asn Glu Glu Lys Ile Thr Glu Ser
                260                 265                 270
Ser Leu Val Glu Ile Thr Glu His Lys Asp Phe Thr Leu Lys Thr Glu
            275                 280                 285
Glu Leu Ile Glu Ser Pro Lys Leu Glu Ser Ser Glu Gly Glu Ile Ile
        290                 295                 300
Gln Thr Val Asp Arg Gln Ser Val Lys Ser Pro Glu Val Gln Leu Leu
.305                 310                 315                 320
Gly His Val Glu Thr Glu Asp Val Glu Ile Ile Ala Thr Cys Asp Thr
                325                 330                 335
Phe Gly Asn Glu Asp Phe Asn Asn Ile Gln Asp Ser Glu Asn Asn Leu
            340                 345                 350
Leu Lys Asn Asn Leu Leu Asn Thr Lys Leu Glu Lys Ser Leu Glu Glu
```

-130-

```
               355                    360                    365
Lys Asn Glu Ser Leu Thr Glu His Pro Arg Ser Thr Glu Leu Pro Lys
       370                    375                    380
Thr His Ile Glu Gln Ile Gln Lys His Phe Ser Glu Asp Asn Asn Glu
385                    390                    395                    400
Met Ile Pro Met Glu Cys Asp Ser Phe Cys Ser Asp Gln Asn Glu Ser
               405                    410                    415
Glu Val Glu Pro Ser Val Asn Ala Asp Leu Lys Gln Met Asn Glu Asn
               420                    425                    430
Ser Val Thr His Cys Ser Glu Asn Asn Met Pro Ser Ser Asp Leu Ala
               435                    440                    445
Asp Glu Lys Val Glu Thr Val Ser Gln Pro Ser Glu Ser Pro Lys Asp
       450                    455                    460
Thr Ile Asp Lys Thr Lys Lys Pro Arg Thr Arg Arg Ser Arg Phe His
465                    470                    475                    480
Ser Pro Ser Thr Thr Trp Ser Pro Asn Lys Asp Thr Pro Gln Glu Lys
               485                    490                    495
Lys Arg Pro Gln Ser Pro Ser Pro Arg Arg Glu Thr Gly Lys Glu Ser
               500                    505                    510
Arg Lys Ser Gln Ser Pro Ser Pro Lys Asn Glu Ser Ala Arg Gly Arg
       515                    520                    525
Lys Lys Ser Arg Ser Gln Ser Pro Lys Lys Asp Ile Ala Arg Glu Arg
       530                    535                    540
Arg Gln Ser Gln Ser Arg Ser Pro Lys Arg Asp Thr Thr Arg Glu Ser
545                    550                    555                    560
Arg Arg Ser Glu Ser Leu Ser Pro Arg Arg Glu Thr Ser Arg Glu Asn
               565                    570                    575
Lys Arg Ser Gln Pro Arg Val Lys Asp Ser Ser Pro Gly Glu Lys Ser
       580                    585                    590
Arg Ser Gln Ser Arg Glu Arg Glu Ser Asp Arg Asp Gly Gln Arg Arg
       595                    600                    605
Glu Arg Glu Arg Arg Thr Arg Lys Trp Ser Arg Ser Arg Ser His Ser
       610                    615                    620
Arg Ser Pro Ser Arg Cys Arg Thr Lys Ser Lys Ser Ser Ser Phe Gly
625                    630                    635                    640
Arg Ile Asp Arg Asp Ser Tyr Ser Pro Arg Trp Lys Gly Arg Trp Ala
               645                    650                    655
Asn Asp Gly Trp Arg Cys Pro Arg Gly Asn Asp Arg Tyr Arg Lys Asn
               660                    665                    670
Asp Pro Glu Lys Gln Asn Glu Asn Thr Arg Lys Glu Lys Asn Asp Ile
               675                    680                    685
His Leu Asp Ala Asp Asp Pro Asn Ser Ala Asp Lys His Arg Asn Asp
       690                    695                    700
Cys Pro Asn Trp Ile Thr Glu Lys Ile Asn Ser Gly Pro Asp Pro Arg
705                    710                    715                    720
Thr Arg Asn Pro Glu Lys Leu Lys Glu Ser His Trp Glu Glu Asn Arg
               725                    730                    735
Asn Glu Asn Ser Gly Asn Ser Trp Asn Lys Asn Phe Gly Ser Gly Trp
               740                    745                    750
Val Ser Asn Arg Gly Arg Gly Arg Gly Asn Arg Gly Arg Gly Thr Tyr
               755                    760                    765
Arg Ser Ser Phe Ala Tyr Lys Asp Gln Asn Glu Asn Arg Trp Gln Asn
       770                    775                    780
Arg Lys Pro Leu Ser Gly Asn Ser Asn Ser Ser Gly Ser Glu Ser Phe
785                    790                    795                    800
```

```
Lys Phe Val Glu Gln Gln Ser Tyr Lys Arg Lys Ser Glu Gln Glu Phe
              805                 810                 815
Ser Phe Asp Thr Pro Ala Asp Arg Ser Gly Trp Thr Ser Ala Ser Ser
          820                 825                 830
Trp Ala Val Arg Lys Thr Leu Pro Ala Asp Val Gln Asn Tyr Tyr Ser
          835                 840                 845
Arg Arg Gly Arg Asn Ser Ser Gly Pro Gln Ser Gly Trp Met Lys Gln
    850                 855                 860
Glu Glu Glu Thr Ser Gly Gln Asp Ser Ser Leu Lys Asp Gln Thr Asn
865                 870                 875                 880
Gln Gln Val Asp Gly Ser Gln Leu Pro Ile Asn Met Met Gln Pro Gln
              885                 890                 895
Met Asn Val Met Gln Gln Gln Met Asn Ala Gln His Gln Pro Met Asn
          900                 905                 910
Ile Phe Pro Tyr Pro Val Gly Val His Ala Pro Leu Met Asn Ile Gln
          915                 920                 925
Arg Asn Pro Phe Asn Ile His Pro Gln Leu Pro Leu His Leu His Thr
    930                 935                 940
Gly Val Pro Leu Met Gln Val Ala Thr Pro Thr Ser Val Ser Gln Gly
945                 950                 955                 960
Leu Pro Pro Pro Pro Pro Pro Pro Pro Ser Gln Gln Val Asn Tyr
          965                 970                 975
Ile Ala Ser Gln Pro Asp Gly Lys Gln Leu Gln Gly Ile Pro Ser Ser
          980                 985                 990
Ser His Val Ser Asn Asn Met Ser Thr Pro Val Leu Pro Ala Pro Thr
    995                 1000                1005
Ala Ala Pro Gly Asn Thr Gly Met Val Gln Gly Pro Ser Ser Gly Asn
    1010                1015                1020
Thr Ser Ser Ser Ser His Ser Lys Ala Ser Asn Ala Ala Val Lys Leu
1025                1030                1035                104
Ala Glu Ser Lys Val Ser Val Ala Val Glu Ala Ser Ala Asp Ser Ser
          1045                1050                1055
Lys Thr Asp Lys Lys Leu Gln Ile Gln Glu Lys Ala Ala Gln Glu Val
          1060                1065                1070
Lys Leu Ala Ile Lys Pro Phe Tyr Gln Asn Lys Asp Ile Thr Lys Glu
          1075                1080                1085
Glu Tyr Lys Glu Ile Val Arg Lys Ala Val Asp Lys Val Cys His Ser
    1090                1095                1100
Lys Ser Gly Glu Val Asn Ser Thr Lys Val Ala Asn Leu Val Lys Ala
1105                1110                1115                112
Tyr Val Asp Lys Tyr Lys Tyr Ser Arg Lys Gly Ser Gln Lys Lys Thr
          1125                1130                1135
Leu Glu Glu Pro Val Ser Thr Glu Lys Asn Ile Gly
          1140                1145
```

```
         <210> 169
         <211> 597
         <212> DNA
         <213> Homo Sapiens

         <400> 169
gagacttta atcatctatc ccttgtgctt tacgcagacc ctacaataca ctagaggctt      60
caaagaggtc aaaaattcac atgtgtagac aaattaggtc ccttaagatg ccagcaaac    120
gaagtgctac caaaacacgc aatgactgtc ctaaaagtgc gttctgggat acacctgtaa   180
acttggatca agttccctcc cctctcctca aaatatatcg acttgtgctg aaagaaatca   240
```

```
cgaccgatgc tcacaattct gacctcgtaa ttatataggg ggtggttttg gtttctgcgt     300
ctttccctga ttcagtggca ggtaacatat ttcatgtaca aaatgaactg caacaccacg     360
gcaaacaagg gacaggccct caaagttgtc ggtagggagc caggacccc ccagtggcgt      420
ggggagacac cgtactaaac aagcttgcaa acagcaggca ccttcctgcc actgaggagg     480
aagggctggc taagggaggc cggggcggag gaagccaagc tctgcaggcc ctgacaaagt     540
cctcccggcc tccacgcgtc gccatggcaa cgcggggtct gtgctgcccg ggattgg       597
```

```
        <210> 170
        <211> 3344
        <212> DNA
        <213> Homo Sapiens

        <400> 170
        ggtacagctg cgcgtctgcg ggaataggtg cagcgggccc ttggcggggg actctgaggg     60
        aggagctggg gacggcgacc ctaggagagt tctttggggt gactttcaag atggactcta    120
        ctctaacagc aagtgaaatc cggcagcgat ttatagattt cttcaagagg aacgagcata    180
        cgtatgttca ctcgtctgcc accatcccat tggatgaccc cactttgctc tttgccaatg    240
        caggcatgaa ccagtttaaa cccattttcc tgaacacaat tgacccatct caccccatgg    300
        caaagctgag cagagctgcc aatacccaga agtgcatccg ggctgggggc aaacaaaatg    360
        acctggacga tgtgggcaag gatgtctatc atcacacctt cttcgagatg ctgggctctt    420
        ggtcttttgg agattacttt aaggaattgg catgtaagat ggctctggaa ctcctcaccc    480
        aagagtttgg cattcccatt gaaagacttt atgttactta ctttggcggg gatgaagcag    540
        ctggcttaga agcagatctg gaatgcaaac agatctggca aaatttgggg ctggatgaca    600
        ccaaaatcct cccaggcaac atgaaggata acttctggga gatgggtgac acgggcccct    660
        gtggtccttg cagtgagatc cactacgacc ggattggtgg tcgggacgcc gcacatcttg    720
        tcaaccagga cgaccctaat gtgctggaga tctggaacct tgtgttcatc cagtataaca    780
        gggaagctga tggcattctg aaacctcttc ccaagaaaag cattgacaca gggatgggcc    840
        tggaacgact ggtatctgtg ctgcagaata agatgtccaa ctatgacact gacctttttg    900
        tcccttactt tgaagccatt cagaagggca caggtgcccg accatacact gggaaagttg    960
        gtgctgagga tgccgatggg attgacatgg cctaccgggt gctggctgac catgctcgga   1020
        ccatcactgt ggcactggct gatggtggcc ggcctgacaa cacagggcgt ggatatgtgt   1080
        tgagacggat tctccgccga gctgtccgat acgcccatga aaagctcaat gccagcaggg   1140
        gcttctttgc tacgttagtg gatgttgtcg tccagtccct gggagatgca tttcctgagc   1200
        tgaagaagga cccagacatg gtgaaggaca tcattaatga agaagaggtg cagtttctca   1260
        agactctcag cagagggcgt cgcatcctgg acaggaaaat tcagagcctg ggagacagca   1320
        agaccattcc cggagacact gcttggctcc tctatgacac ctatgggttt ccagtggatc   1380
        tgactggact gattgctgaa gagaaggggcc tggtggtaga catggatggc tttgaagagg   1440
        agaggaaact ggcccagctg aaatcacagg gcaagggagc tggtggggaa gacctcatta   1500
        tgctggacat ttacgctatc gaagagctcc gggcacgggg tctggaggtc acagatgatt   1560
        ccccaaagta caattaccat ttggactcca gtggtagcta tgtatttgag aacacagtgg   1620
        ctacggtgat ggctctgcgc agggagaaga tgttcgtgga agaggtgtcc acaggccagg   1680
        agtgtggagt ggtgctggac aagacctgtt tctatgctga gcaaggaggc cagatctatg   1740
        acgaaggcta cctggtgaag gtggatgaca gcagtgaaga taaaacagag tttacagtga   1800
        agaatgctca ggtccgagga gggtatgtgc tacacattgg aaccatctac ggtgacctga   1860
        aagtggggga tcaggtctgg ctgtttattg atgagccccg acgaagaccc atcatgagca   1920
        accacacagc tacgcacatt ctgaacttcg ccctgcgctc agtgcttggg gaagctgacc   1980
        agaaaggctc attggttgct cctgaccgcc tcagatttga ctttactgcc aagggagcca   2040
        tgtccaccca acagatcaag aaggctgaag agattgctaa tgagatgatt gaggcagcca   2100
        aggccgtcta tacccaggat tgcccctgg cagcagcgaa agccatccag ggcctacggg   2160
        ctgtgtttga tgagacctat cctgaccctg tgcgagtcgt ctccattggg tcccggtgt     2220
        ccgagttgct ggatgacccc tctgggcctg ctggctccct gacttctgtt gagttctgtg    2280
        ggggaacgca cctgcggaac tcgagtcatg caggagcttt tgtgatcgtg acggaagaag    2340
        ccattgccaa gggtatccgg aggattgtgg ctgtcacagg tgccgaggcc cagaaggccc    2400
        tcaggaaagc agagagcttg aagaaatgtc tctctgtcat ggaagccaaa gtgaaggctc    2460
        agactgctcc aaacaaggat gtgcagaggg agatcgctga ccttggagag gccctggcca    2520
```

-133-

```
ctgcagtcat cccccagtgg cagaaggatg aattgcggga gactctcaaa tccctaaaga   2580
aggtcatgga tgacttggac cgagccagca agccgatgt ccagaaacga gtgttagaga   2640
agacgaagca gttcatcgac agcaaccca accagcctct tgtcatcctg gagatggaga   2700
gcggcgcctc agccaaggcc ctgaatgaag ccttgaagct cttcaagatg cactcccctc   2760
agacttctgc catgctcttc acggtggaca atgaggctgg caagatcacg tgcctgtgtc   2820
aagtccccca gaatgcagcc aatcggggct taaaagccag cgagtgggtg cagcaggtgt   2880
caggcttgat ggacggtaaa ggtggtggca aggatgtgtc tgcacaggcc acaggcaaga   2940
acgttggctg cctgcaggag gcgctgcagc tggccacttc cttcgcccag ctgcgcctcg   3000
gggatgtaaa gaactgagtg gggaaggagg aggctcccac tggatccatc cgtccagcca   3060
agagctcttc atctgctaca agaacatttg aatcttggga cctttaaaga gcccctccta   3120
acccagcagt aactggaaca cacttgggag cagtcctatg tctcagtgcc ccttaaattt   3180
ctgccctgag ccctccacgt cagtgccatc ggtctagaac cactaacccc gcattgctgt   3240
tgatcgtcac gctcgcatct atagataacg gctctccaga cctgagcttt ccgcgtcagc   3300
aagtaggaat cgtttttgct gcagagaata aaaggaccac gtgc   3344
```

```
<210> 171
<211> 1004
<212> PRT
<213> Homo Sapiens
```

```
<400> 171
Tyr Ser Cys Ala Ser Ala Gly Ile Gly Ala Ala Gly Pro Trp Arg Gly
1               5                   10                  15
Thr Leu Arg Glu Glu Leu Gly Thr Ala Thr Leu Gly Glu Phe Phe Gly
            20                  25                  30
Val Thr Phe Lys Met Asp Ser Thr Leu Thr Ala Ser Glu Ile Arg Gln
        35                  40                  45
Arg Phe Ile Asp Phe Phe Lys Arg Asn Glu His Thr Tyr Val His Ser
    50                  55                  60
Ser Ala Thr Ile Pro Leu Asp Asp Pro Thr Leu Leu Phe Ala Asn Ala
65                  70                  75                  80
Gly Met Asn Gln Phe Lys Pro Ile Phe Leu Asn Thr Ile Asp Pro Ser
                85                  90                  95
His Pro Met Ala Lys Leu Ser Arg Ala Ala Asn Thr Gln Lys Cys Ile
            100                 105                 110
Arg Ala Gly Gly Lys Gln Asn Asp Leu Asp Asp Val Gly Lys Asp Val
        115                 120                 125
Tyr His His Thr Phe Phe Glu Met Leu Gly Ser Trp Ser Phe Gly Asp
    130                 135                 140
Tyr Phe Lys Glu Leu Ala Cys Lys Met Ala Leu Glu Leu Leu Thr Gln
145                 150                 155                 160
Glu Phe Gly Ile Pro Ile Glu Arg Leu Tyr Val Thr Tyr Phe Gly Gly
                165                 170                 175
Asp Glu Ala Ala Gly Leu Glu Ala Asp Leu Glu Cys Lys Gln Ile Trp
            180                 185                 190
Gln Asn Leu Gly Leu Asp Asp Thr Lys Ile Leu Pro Gly Asn Met Lys
        195                 200                 205
Asp Asn Phe Trp Glu Met Gly Asp Thr Gly Pro Cys Gly Pro Cys Ser
    210                 215                 220
Glu Ile His Tyr Asp Arg Ile Gly Gly Arg Asp Ala Ala His Leu Val
225                 230                 235                 240
Asn Gln Asp Asp Pro Asn Val Leu Glu Ile Trp Asn Leu Val Phe Ile
                245                 250                 255
Gln Tyr Asn Arg Glu Ala Asp Gly Ile Leu Lys Pro Leu Pro Lys Lys
            260                 265                 270
```

```
Ser Ile Asp Thr Gly Met Gly Leu Glu Arg Leu Val Ser Val Leu Gln
        275             280             285
Asn Lys Met Ser Asn Tyr Asp Thr Asp Leu Phe Val Pro Tyr Phe Glu
        290             295             300
Ala Ile Gln Lys Gly Thr Gly Ala Arg Pro Tyr Thr Gly Lys Val Gly
305             310             315             320
Ala Glu Asp Ala Asp Gly Ile Asp Met Ala Tyr Arg Val Leu Ala Asp
                325             330             335
His Ala Arg Thr Ile Thr Val Ala Leu Ala Asp Gly Gly Arg Pro Asp
            340             345             350
Asn Thr Gly Arg Gly Tyr Val Leu Arg Arg Ile Leu Arg Arg Ala Val
            355             360             365
Arg Tyr Ala His Glu Lys Leu Asn Ala Ser Arg Gly Phe Phe Ala Thr
    370             375             380
Leu Val Asp Val Val Val Gln Ser Leu Gly Asp Ala Phe Pro Glu Leu
385             390             395             400
Lys Lys Asp Pro Asp Met Val Lys Asp Ile Ile Asn Glu Glu Glu Val
            405             410             415
Gln Phe Leu Lys Thr Leu Ser Arg Gly Arg Arg Ile Leu Asp Arg Lys
            420             425             430
Ile Gln Ser Leu Gly Asp Ser Lys Thr Ile Pro Gly Asp Thr Ala Trp
        435             440             445
Leu Leu Tyr Asp Thr Tyr Gly Phe Pro Val Asp Leu Thr Gly Leu Ile
    450             455             460
Ala Glu Glu Lys Gly Leu Val Val Asp Met Asp Gly Phe Glu Glu Glu
465             470             475             480
Arg Lys Leu Ala Gln Leu Lys Ser Gln Gly Lys Gly Ala Gly Gly Glu
            485             490             495
Asp Leu Ile Met Leu Asp Ile Tyr Ala Ile Glu Glu Leu Arg Ala Arg
            500             505             510
Gly Leu Glu Val Thr Asp Asp Ser Pro Lys Tyr Asn Tyr His Leu Asp
    515             520             525
Ser Ser Gly Ser Tyr Val Phe Glu Asn Thr Val Ala Thr Val Met Ala
    530             535             540
Leu Arg Arg Glu Lys Met Phe Val Glu Glu Val Ser Thr Gly Gln Glu
545             550             555             560
Cys Gly Val Val Leu Asp Lys Thr Cys Phe Tyr Ala Glu Gln Gly Gly
            565             570             575
Gln Ile Tyr Asp Glu Gly Tyr Leu Val Lys Val Asp Asp Ser Ser Glu
            580             585             590
Asp Lys Thr Glu Phe Thr Val Lys Asn Ala Gln Val Arg Gly Gly Tyr
    595             600             605
Val Leu His Ile Gly Thr Ile Tyr Gly Asp Leu Lys Val Gly Asp Gln
    610             615             620
Val Trp Leu Phe Ile Asp Glu Pro Arg Arg Pro Ile Met Ser Asn
625             630             635             640
His Thr Ala Thr His Ile Leu Asn Phe Ala Leu Arg Ser Val Leu Gly
            645             650             655
Glu Ala Asp Gln Lys Gly Ser Leu Val Ala Pro Asp Arg Leu Arg Phe
            660             665             670
Asp Phe Thr Ala Lys Gly Ala Met Ser Thr Gln Gln Ile Lys Lys Ala
    675             680             685
Glu Glu Ile Ala Asn Glu Met Ile Glu Ala Ala Lys Ala Val Tyr Thr
    690             695             700
Gln Asp Cys Pro Leu Ala Ala Ala Lys Ala Ile Gln Gly Leu Arg Ala
```

```
705                     710                    715                    720
Val Phe Asp Glu Thr Tyr Pro Asp Pro Val Arg Val Val Ser Ile Gly
                    725                    730                    735
Val Pro Val Ser Glu Leu Leu Asp Asp Pro Ser Gly Pro Ala Gly Ser
                740                    745                   750
Leu Thr Ser Val Glu Phe Cys Gly Gly Thr His Leu Arg Asn Ser Ser
                755                    760                    765
His Ala Gly Ala Phe Val Ile Val Thr Glu Glu Ala Ile Ala Lys Gly
    770                    775                    780
Ile Arg Arg Ile Val Ala Val Thr Gly Ala Glu Ala Gln Lys Ala Leu
785                    790                    795                    800
Arg Lys Ala Glu Ser Leu Lys Lys Cys Leu Ser Val Met Glu Ala Lys
                805                    810                    815
Val Lys Ala Gln Thr Ala Pro Asn Lys Asp Val Gln Arg Glu Ile Ala
                820                    825                    830
Asp Leu Gly Glu Ala Leu Ala Thr Ala Val Ile Pro Gln Trp Gln Lys
                835                    840                    845
Asp Glu Leu Arg Glu Thr Leu Lys Ser Leu Lys Lys Val Met Asp Asp
    850                    855                    860
Leu Asp Arg Ala Ser Lys Ala Asp Val Gln Lys Arg Val Leu Glu Lys
865                    870                    875                    880
Thr Lys Gln Phe Ile Asp Ser Asn Pro Asn Gln Pro Leu Val Ile Leu
                885                    890                    895
Glu Met Glu Ser Gly Ala Ser Ala Lys Ala Leu Asn Glu Ala Leu Lys
                900                    905                    910
Leu Phe Lys Met His Ser Pro Gln Thr Ser Ala Met Leu Phe Thr Val
    915                    920                    925
Asp Asn Glu Ala Gly Lys Ile Thr Cys Leu Cys Gln Val Pro Gln Asn
    930                    935                    940
Ala Ala Asn Arg Gly Leu Lys Ala Ser Glu Trp Val Gln Gln Val Ser
945                    950                    955                    960
Gly Leu Met Asp Gly Lys Gly Gly Gly Lys Asp Val Ser Ala Gln Ala
                965                    970                    975
Thr Gly Lys Asn Val Gly Cys Leu Gln Glu Ala Leu Gln Leu Ala Thr
    980                    985                    990
Ser Phe Ala Gln Leu Arg Leu Gly Asp Val Lys Asn
    995                    1000
```

```
        <210> 172
        <211> 659
        <212> DNA
        <213> Homo Sapiens

        <400> 172
        gcctgagcaa cgtctccgag caggcgctgg gctagaggcg ggtctcaacc agctactcat      60
        tggaggcggg cttgagagcg gcggccaggg aggtgcggag cagcctcggc ggcggcggcc     120
        gaaccaaccg agtcggatcc tgaccctaaa acctagtatt ttccacttgt tcatcaatat     180
        ggaaaactca gattccaatg acaaaggaag tggtgatcag tctgcagcac agcgcagaag     240
        tcagatggac cgattggatc gagaagaagc tttctatcaa tttgtaaata acctgagtga     300
        agaagattat aggcttatga gagataacaa tttgctaggc accccaggtg aaagtactga     360
        ggaagagttg ctgagacgac tacagcaaat taaagaaggc ccaccaccgc aaaactcaga     420
        tgaaaataga ggaggagact cttcagatga tgtgtctaat ggtgactcta taatagactg     480
        gcttaactct gtcagacaaa ctggaaatac aacaagaagt gggcaaagag gaaaccaatc     540
        ttggagagca gtgagtcgga ctaatccaaa cagtgggtga tttcagattc agtttagaga     600
        taaatgttaa cccgtaataa tgggagccaa aattcagaga atgaaaatga gccatctgc      659
```

```
<210> 173
<211> 192
<212> PRT
<213> Homo Sapiens


<400> 173
```

```
Pro Glu Gln Arg Leu Arg Ala Gly Ala Gly Leu Glu Ala Gly Leu Asn
1               5                   10                  15
Gln Leu Leu Ile Gly Gly Gly Leu Glu Ser Gly Gly Gln Gly Gly Ala
            20                  25                  30
Glu Gln Pro Arg Arg Arg Arg Pro Asn Gln Pro Ser Arg Ile Leu Thr
        35                  40                  45
Leu Lys Pro Ser Ile Phe His Leu Phe Ile Asn Met Glu Asn Ser Asp
    50                  55                  60
Ser Asn Asp Lys Gly Ser Gly Asp Gln Ser Ala Ala Gln Arg Arg Ser
65                  70                  75                  80
Gln Met Asp Arg Leu Asp Arg Glu Glu Ala Phe Tyr Gln Phe Val Asn
                85                  90                  95
Asn Leu Ser Glu Glu Asp Tyr Arg Leu Met Arg Asp Asn Asn Leu Leu
            100                 105                 110
Gly Thr Pro Gly Glu Ser Thr Glu Glu Glu Leu Leu Arg Arg Leu Gln
        115                 120                 125
Gln Ile Lys Glu Gly Pro Pro Pro Gln Asn Ser Asp Glu Asn Arg Gly
    130                 135                 140
Gly Asp Ser Ser Asp Asp Val Ser Asn Gly Asp Ser Ile Ile Asp Trp
145                 150                 155                 160
Leu Asn Ser Val Arg Gln Thr Gly Asn Thr Thr Arg Ser Gly Gln Arg
                165                 170                 175
Gly Asn Gln Ser Trp Arg Ala Val Ser Arg Thr Asn Pro Asn Ser Gly
            180                 185                 190
```

```
<210> 174
<211> 610
<212> DNA
<213> Homo Sapiens


<400> 174
```

```
gtactggcat cagtcaatgt tctggagtga tttgggcccc gatgttggct atgaagctat   60
tggtcttgtg gacagtagtt tgcccacagt tggtgttttt gcaaaagcaa ctgcacaaga  120
caaccccaaa tctgccacag agcagtcagg aactggtatc cgatcagaga gtgagacaga  180
gtccgaggcc tcagaaatta ctattcctcc cagcaccccg gcagttccac aggctcccgt  240
ccagggggag gactacggca aaggtgtcat cttctacctc agggacaaag tggtcgtggg  300
gattgtgcta tggaacatct ttaaccgaat gccaatagca aggaagatca ttaaggacgg  360
tgagcagcat gaagatctca atgaagtagc caaactattc aacattcatg aagactgaag  420
ccccacagtg gaattggcaa acccactgca gcccctgaga ggaggtcgaa tgggtaaagg  480
agcatttttt tattcagcag actttctctg tgtatgagtg tgaatgatca agtcctttgt  540
gaatattttc aactatgtag gtaaattctt aatgttcnca tagtgaaata aattctgatt  600
cttctaaaaa                                                         610
```

```
<210> 175
<211> 138
<212> PRT
<213> Homo Sapiens


<400> 175
```

```
Tyr Trp His Gln Ser Met Phe Trp Ser Asp Leu Gly Pro Asp Val Gly
1               5                   10                  15
Tyr Glu Ala Ile Gly Leu Val Asp Ser Ser Leu Pro Thr Val Gly Val
            20                  25                  30
Phe Ala Lys Ala Thr Ala Gln Asp Asn Pro Lys Ser Ala Thr Glu Gln
        35                  40                  45
Ser Gly Thr Gly Ile Arg Ser Glu Ser Glu Thr Glu Ser Glu Ala Ser
    50                  55                  60
Glu Ile Thr Ile Pro Pro Ser Thr Pro Ala Val Pro Gln Ala Pro Val
65                  70                  75                  80
Gln Gly Glu Asp Tyr Gly Lys Gly Val Ile Phe Tyr Leu Arg Asp Lys
                85                  90                  95
Val Val Val Gly Ile Val Leu Trp Asn Ile Phe Asn Arg Met Pro Ile
                100                 105                 110
Ala Arg Lys Ile Ile Lys Asp Gly Glu Gln His Glu Asp Leu Asn Glu
        115                 120                 125
Val Ala Lys Leu Phe Asn Ile His Glu Asp
    130                 135
```

<210> 176
<211> 805
<212> DNA
<213> Homo Sapiens

<400> 176
```
gggacagcca agtctgtgac ttgcacgtac tcccctgccc tcaacaagat gttttgccaa   60
ctggccaaga cctgccctgt gcagctgtgg gttgattcca cacccccgcc cggcacccgc  120
gtccgcgcca tggccatcta caagcagtca cagcacatga cggaggttgt gaggcgctgc  180
ccccaccatg agcgctgctc agatagcgat ggtctggccc ctcctcagca tcttatccga  240
gtggaaggaa atttgcgtgt ggagtatttg gatgacagaa acacttttcg acatagtgtg  300
gtggtgccct atgagccgcc tgaggttggc tctgactgta ccaccatcca ctacaactac  360
atgtgtaaca gttcctgcat gggcggcatg aaccggaggc ccatcctcac catcatcaca  420
ctggaagact ccagtggtaa tctactggga cggaacagct tgaggtgcg tgtttgtgcc  480
tgtcctggga gagaccggcg cacagaggaa gagaatctcc gcaagaaagg ggagcctcac  540
cacgaagctg cccccaggga gcactaagcg agcactgccc aacaacacca agctcctctc  600
cccagccaaa gaagaaanca ctggatngag aatatttcac cccttcanat tcgttgggcg  660
tgagcgcttc cganaatgtt ccgaagagct gnaagaaggc cttgggaact caaaggatgc  720
ccaaggcttg ggaaaggagc caanggggg gaancaangg gctcaactnc aagccaacct  780
gaaagttcca aaaaangggt ccagt                                       805
```

<210> 177
<211> 626
<212> DNA
<213> Homo Sapiens

<400> 177
```
ctaatttgtc tgtttattcc cacaaggtag ccaggggtgg gggcgccgag ccaagcccag   60
caggccatgg gaccttcctc cggcggggtg cacgctggat tttcgggtct gccccaccag  120
caggtttgca ggcaggccgt catgagtgcc ggtggaaggc tccgagggcg tgggcagggg  180
ctcgggcggg gccacacact tgtggagcta gaaatantgg ggcaggtcct tctctatcac  240
caggggctcc tccatgggtc cgtagcgctt caccacgcag ccgttcttgt cgatgaggaa  300
ctgtgganan acggtgtcca aactgtgggg ccacccctgc aaggggctga ggctgccctt  360
cctgtccgct gccatctgg gccacggctg tggccagggg aaactggtcc cctaccccc   420
acagcccct tacctttggt gaagttccac ttgatggcac tggaaaanaa gcacatggac  480
gtgagcgtcc ccaggcagcc ccccacagtc cccaaagctt gtcctgtctc caaggaggcc  540
```

```
anaaaggttg tnagcttccc ccggtncctc cacangccac agtgcccccca aancccccccc      600
aanagccatc tttaccccaa ggaggg                                           626
```

        <210> 178
        <211> 793
        <212> DNA
        <213> Homo Sapiens

        <400> 178
```
gcgcgaggct gctgctgctg cccccggccc gcgcggctgg aaacggagag gccgagccaa        60
gcggcggccc ctcttatgct gggaggatgc tggagagtag cggctgcaaa gcgctgaagg       120
agggcgtgct ggagaagcgc agcgacgggt tgttgcagct ctggaagaaa aagtgttgca       180
tcctcaccga ggaagggctg ctgcttatcc cgcccaagca gctgcaacac cagcagcagc       240
agcaacagca gcagcagcag cagcaacaac agcccgggca ggggccggcc gagccgtccc       300
aacccagtgg ccccgctgtc gccagcctcg agccgccggt caagctcaag gaactgcact       360
tctccaacat gaagaccgtg gactgtgtgg agcgcaaggg caagtacatg tacttcactg       420
tggtgatggc agagggcaag gagatcgact ttcggtgccc gcaagaccag ggctggaacg       480
ccgagatcac gctgcagatg gtgcagtaca agaatcgtca ggccatcctg gcggtcaaat       540
ccacgcggca gaagcagcag cacctggtcc agcancagcc cccctcgcag ccgcagccgc       600
agccgcagct ccaagcccca accccagcct tcagcctcaa gccngcaacc ccaagcccca       660
attcacaaac cccaagccct caagccccaa cccaaagccc tcangcccca ngcaagntcc       720
aacccgttat ncggccatcc aacattccaan atccaanact ctcaangcct taactncgcn       780
acccaanaac nct                                                         793
```

        <210> 179
        <211> 786
        <212> DNA
        <213> Homo Sapiens

        <400> 179
```
aatatcagag ttttaatttc aaccagctgg cacaacaatg aaagtgtcag actttctgaa        60
agtactcgag aaataatgaa taaattctta atgttttccc ctccaccgcc cttttttatt       120
ctccaagatt aggaattact acggattagg tttttgaaaa taaagtttcc tttttggaaa       180
atggtctaca ttcagaaatg tcttagaaca agcatttaaa aaaaactaat aaataatcat       240
aaatcaaaat acattaaaat aaaattacag tacatcatcg ctcctagaaa attcaccata       300
caagacgatc ctttcaaagg ttcataaata aaagtcttct tgactcgaaa tcgtttcctg       360
catcgtgatg aaaagtatgc agaaaactaa gaagaatcgc aagttttcag tagggtgatg       420
tccaaactac ttgatctggt gcggggcgga gagactgttt tgcttttgat ccaagtgaag       480
acaatagaaa tgtgctcgtc ccacttcctc aagtcctcaa aaccttgtct tgcccgggag       540
ctgcccctttt cangcagagt tgggaggtgc tgcggganaaa ccggtgcccg tgcggctgcc       600
aatgcggctg tgggtgtggg tgcngtattt ggtgccggat gcnggtgccg ggtnaaggtg       660
tggggtgcca antnaaggat gaaaatgtgg atnttngnat nttgattccg gatacgggt        720
gggaacctng cnggggggccn naaggcttgg ggttggggct naanggctgg ggtttttaa       780
ttggggg                                                               786
```

        <210> 180
        <211> 791
        <212> DNA
        <213> Homo Sapiens

        <400> 180
```
aggacctcag agacccaggc tctgtgattg tggccttcaa ggaagggggaa cagaaggaga        60
aggaggggtat cctgcagctg cgtcgcacca actcagccaa gcccagtcca ctggcaccat       120
ccctcatggc ctcttctccg acttctatct gtgtgtgtgg gcaggtgcca gctggggtgg       180
gagttctgca gtgtgacctg tgtcaggact ggttccatgg gcagtgtgtg tcagtgcccc       240
```

                                -139-

```
atctcctcac ctctccaaag cccagtctca cttcatctcc actgctagcc tggtgggaat      300
gggacacaaa attcctgtgt ccactgtgta tgcgctcacg acggccacgc ctagagacaa      360
tcctagcctt gctggttgcc ctgcagaggc tgcccgtgcg gctgcctgag ggtgaggccc      420
ttcagtgtct cacagagagg gccattggct ggcaagaccg tgccagaaag gctctggcct      480
ctgaagatgt gactgctctg ttgcgacagc tggctgagct tcgccaacag ctacaggcca      540
aacccanacc agaggaggcc tcagtctaca cttcagccac tgcctgtgac cctatcagag      600
aaggcagtgg caacaatatt tcnaangtcc aagggctgct ggagaatgga gacantgttg      660
accagtcctg agaacatggc tccaggaaag ggctctgacc tggagctacn gtcctcactg      720
ttgccgcaat ttgactggnc ctgttttgg ganctgcctg aaggcaatcc cggggctccc      780
cctggaggga g                                                          791
```

```
        <210> 181
        <211> 747
        <212> DNA
        <213> Homo Sapiens

        <400> 181
agtatccaaa catactcatt gtttatttt taacaaaaga aatgaaatta aagatagacc       60
acaggtagag tcatgaaatt cttgtttttc cctattcttt ttggtaatta caacgtacat      120
tgtcttcttt tataataaga cccaaggggga gaaaagaaaa ggatgtacaa tgaaggtaca      180
agttttgaag caccaaaata ttttatgaca gggacaaaaa aacaaaaaac aaacaaaaat      240
tgaagtacag aaagagggtg gtggggggcaa aaataaaggt acgcacttgg gcttcctcaa      300
gatttgtttg tccctattca gactagaatg aaactggttt aggaaatcac tcctgtatgc      360
tagcaggaat gttgctggca agacacttct gagcatcggg gtgtggactt tacgaaccaa      420
ccttttaaca gtaactctag gagagaggat atcaaaaatt ggcagtgaaa aattatagat      480
aggcaaaaag ctccttctga ggtccaggcc aggagatagt angatttaag aaacaaacaa      540
acaataacaa ccacaaatgg acctttggtg ccactgtcac aactgttgct catcagagta      600
ggagaattgt ancaaaggca ttaaagaagg acaagcaag ctgaagagcc tgaatccttg      660
gggttgtaag ccnatttttgg gnttcctttc aagaaaaggg ctgttggncg gtggaanggg      720
tcanggaaca ntatttcacg ggtcngc                                          747
```

```
        <210> 182
        <211> 909
        <212> DNA
        <213> Homo Sapiens

        <400> 182
aaacagagag ccaaatcatg agtgaactcc cattcacaat tgcttccaag ataataaaat       60
acctaggaat ccaacttaca aaggatgtga aggacctctt caaggagaac tacaaaccac      120
tgctcaatga aataaaagag gatacaaaca aatggaagaa cattccatgc tcatgggtag      180
gaagaatcaa tatcgtgaaa atggccatac tgcccaaggt aatgtataga ttcaatgcca      240
tccccatcaa gctaccaatg actttcttca cagaattgga aaaaactact caaaagttca      300
tatggaacca aaaaagagcc cacattgcca gtcaatcct aagccaaaag aacaaagctg      360
gaggcatcac gctacctgac ttcaaactat actacaaggc tacagtaacc aaaacagcgt      420
ggtactggta ccaaaacaga gatataaatc aatgcaacag aacagagccc tcagaaataa      480
tgccacatat ctacaactat ctgatctttg acaaacctga gaaaacaag caatggggaa      540
aggattcccct atttaataaa tggtgctggg aaaactggct agccatatgt agaaagctga      600
aactggatct cttcttttata ccttatacaa aaattaattg aagatggntt aaaggactta      660
aacgttagac ctaaaaccat aaaaacccta gaagaaaaac ctaggcatta ccattcangg      720
acataggctt gggcaaggac ttcctgtcta aaacaccaan agcaatggga ncaaaagcca      780
aaattgcaaa tggggattct aattaactaa agggctttttg cacagcnaag aagctccatc      840
agagngaaca ggaacntcaa antgggagaa attttgaacc taccatcnga naaggctaat      900
nccagaatc                                                             909
```

```
        <210> 183
```

```
      <211> 708
      <212> DNA
      <213> Homo Sapiens

      <400> 183
attatcatta tactttaagt tttaggttac atgtgcacaa tgtgcaggtt agttacatat      60
gtatacatgt gccatgctgg tgtgctgcac ccattaactc gttatttagc attaggtata     120
tctcctaatg ctatccctcc cgcctccccc caccccacaa cagtccccag agtgtgatgt     180
tccccttcct gtgtccatgt gttctcactg ttcaattccc acctatgagt gagaatatgc     240
ggtgtttggt tttttgtcc ttgccatagt ttactgagaa tgatgatttc caatttcatc      300
cctgtcccta caaaggacat gaactcatca tttttatgg ctgcatagta ttccatggtg       360
tatatgtgcc acattttctt aatccagtct atcattgttg gccatttggg ttggttccaa     420
gtctttgcta ttgtgaatac tgccgcaata aacatacgtg tgcatgtgtc tttatagcag     480
catgatttat antccttgg gtatatactc agtaatggga tggctgggtc aaatggnatt      540
ccaantccan atcccttang aattgccaca cggactccac aanggttgaa ctantttaca     600
gtcccancaa cagngtnaaa gggtccnaan tcnccaaaat cctctccaag caccngttgt     660
tcccggactt tttaanggat tgncaattcc aaccgggngt caaaaggg                  708


      <210> 184
      <211> 855
      <212> DNA
      <213> Homo Sapiens

      <400> 184
agactcacag tctgctggtg ggcagagaag acagaaacga catgagcaca gcaggaaaag      60
taatcaaatg caaagcagct gtgctatggg aggtaaagaa acccttttcc attgaggatg     120
tggaggttgc acctcctaag gcttatgaag ttcgcattaa gatggtggct gtaggaatct     180
gtcgcacaga tgaccacgtg gttagtggca acctggtgac cccccttcct gtgattttag     240
gccatgaggc agccggcatc gtggagagtg ttggagaagg ggtgactaca gtcaaaccag     300
gtgataaagt catcccgctc tttactcctc agtgtggaaa atgcagagtt tgtaaaaacc     360
cggagagcaa ctactgcttg aaaaatgatc taggcaatcc tcggggggacc ctgcaggatg    420
gcaccaggag gttcacctgc aggggggaagc ccattcacca cttccttggc accagcacct    480
tctcccagta cacggtggtg gatgagaatg cagtggccaa aattgatgca gcctcgcccc     540
tggagaaagt ctgcctcatt ggctgtggat tctcgactgg gttatgggtc tgcagttaac     600
gttgccaagg tcaccccagg ctctacctgt gctgtgtgtg gcctgggaag ggtcggccta     660
tctgctgtta tgggctgtta aagcaactgg aggcanccag aatcaattgc ggtggacatc     720
aacaaggaca aattttgcaa agggcaaaag agttgggtgc cactgaatgc catcaaccct     780
caagnctnca ngnaaacccca tccaggnaag tgctaaaang gaatttaccg attggagggt    840
ttggattttt ccgtt                                                      855


      <210> 185
      <211> 865
      <212> DNA
      <213> Homo Sapiens

      <400> 185
cacagatgtt caatcaactg atgaagcaag tgtcaggact tactgttgac acagaggagc      60
ggctgaaagg agttattgac ctggtctttg agaaggctat tgatgaaccc agtttctctg     120
tggcttacgc aaacatgtgt cgatgtctag taacgctgaa agtaccatg gcagacaagc       180
ctggtaacac agtgaatttc cggaagctgc tactgaaccg ttgccagaag gagtttgaaa     240
aagataaagc agatgatgat gtctttgaga agaagcagaa agaacttgag gctgccagtg     300
ctccagagga gaggacaagg cttcatgatg aactggaaga agccaaggac aaagcccggc     360
ggagatccat tggcaacatc aagtttattg gagaactctt taaactcaaa atgctgactg     420
aagccatcat gcatgactgt gtggtgaagc tgctaaagaa ccatgatgaa gaatccctgg     480
agtgcctgtg tcgcctgctc accaccattg gcaaagactt ggactttgaa aaagcaaagc     540
```

```
cacgtatgga ccagtacttt aatcaagatg gagaaaattg tnaaagaaag aaaaacctca     600
tctagggatt cggttcatgc ttcaaagatg ttatanacct aaggctgttg caattggggt     660
atctcgaaag agcagatnaa gggcctnaan ctatcgaaca gattcacaaa ganggctaaa     720
attgaaanaa caagaatagc caaagggaag gnccaacaac tcatggacca anggagaaat     780
agaataccaa ggtgttccaa aaanttggcc aaangnnggt tggaaanacn gttcaaaggg     840
ggccangaaa aantccgggt actgg                                           865
```

        <210> 186
        <211> 736
        <212> DNA
        <213> Homo Sapiens

        <400> 186
```
aaatatttgt tctatgtatt tacaagcctt aaagttgctc taaagatttc aagagtatta      60
agagtacttt tctcagggta gcactttngt tttttaaac aattcttgga gttctgtggt     120
ccacagcatt tccttctgtt tcaatgttat gtatgttttg attactattg tgattttta     180
aattttctga agcaagctga gaggcaggca gaaagatttg atgccaaaaa aaaaaaaatc     240
tttcttacct tgttcacccc aaactttctc aaatctggac taaatgctat accttaaaac     300
aaacatgagg tgcatcttga aggggaggga aatttatttc tctgcttttc tattatacaa     360
gttgtttaca gaaactgcaa attaaaaaat tacactggca tttgcagtcc ttaaaataaa     420
ttaaaagttc tcaacttttt tttttttttg ctaaacattt ttttaagtat gagtccttgt     480
ttaaaaagaa aagattaaaa cagaaaatat tttctataaa taatacatgt attttggttt     540
tagtgctccc gccctaaggt ttgaagttta cttttancca ngtacctttt tcctccatga     600
tcaccttttt ttctctttcc cctctcccaa ntccgtgcac acgtgggggt ttccggcaan     660
aattggcctt gctgnactgt gattgggcga anaacgttga aaaaccttt taaaaaaaaa     720
tacttaaaat tgggtt                                                     736
```

        <210> 187
        <211> 946
        <212> DNA
        <213> Homo Sapiens

        <400> 187
```
tgaaggagct acaggccgag caggaggacc gggctttaag gagttttaag ctgagtgtca      60
ctgtagaccc caaataccat cccaagatta tcgggagaaa gggggcagta attacccaaa     120
tccggttgga gcatgacgtg aacatccagt ttcctgataa ggacgatggg aaccagcccc     180
aggaccaaat taccatcaca gggtacgaaa agaacacaga agctgccagg gatgctatac     240
tgagaattgt gggtgaactt gagcagatgg tttctgagga cgtcccgctg gaccaccgcg     300
ttcacgcccg catcattggt gcccgcggca aagccattcg caaaatcatg gacgaattca     360
aggtggacat tcgcttccca cagagcggag ccccagaccc caactgcgtc actgtgacgg     420
ggctcccaga gaatgtggag gaagccatcg accacatcct caatctggag gaggaatacg     480
tgagtctctg tgggccttgg agccctgagg cgccctggca cgtccaccgg cctgaggccc     540
agccaggagc ttcaggggac aaggtggcac ttgtgtttcc agaggcaagc naagtgcagg     600
ggtgagcaag cnggcgggat gctggggggtg ctggggcaaa ctgaccctgt cttcctgtct     660
tccgcctgca gctagcctga cgttgtggac agtnaangcg cctgcangtt atacatgaaa     720
ccccccagcac acgaanaagc caanggnacc tttcaaaagg ctttnttggt gccgggacca     780
acctgggacc gccagcaacc aatnaaaaaa ggcnctgacn ttaaccaagc tcngagggaa     840
tttcccancc tttgggggcc caaggtggct cccaaagaac cctccccntt nggggccccc     900
aaacnaatna ttgttcaaaa anggaacaaa aacccctctc aagccc                    946
```

        <210> 188
        <211> 802
        <212> DNA
        <213> Homo Sapiens

```
        <400> 188
aaagtcaagg ncgtttattt ccngaggnca tgacacanga agtggaatcc naaccacggn    60
tgcggnnnaa aagtgatgaa ggccaaagtg ctgactgaca tgccgggtgg accaaganct   120
ggagtcngtt atcntaacac gaatgcccan gaccttggtt taatgttaaa cantggagca   180
ngtcctganc gggcacggcc angcctggag gancggccgc acacacancc angcgcnagg   240
ctccctgcgg gacctcngga aggggggaana gcgtcaacaa tttacggngg gtccaaccgc   300
tgggtcaaat tgagacaaac cantgtgtgg ttgggttcgg gtcancangc tgganangt    360
tcngttcntt ttgatcanta ncntttgggg ccccaaggga nggtcntggg anccacctga    420
ncccaaagc  tgggaaattc ctcaaagctg cncatgtcaa gagccttcnc antgctgctg   480
gcggtccaag gtgcgtcccg caccacaaag cctctggaag gngccntggc ctcttcctgt   540
gccgggggtt tcatgtntac ctgcancgcc tcactgtcca ccaangtcag ctaactgcag   600
gcnnaagaca ggaatnacag ggtcagtctg cccaacaacc ccancatccc ggcccgccct   660
ggctcaaacc ctgcaacctt gcctgccttc cgggaancac aatttcccac ccttgtnccc   720
ctgaaanccn cctggnctgg ggccntcaaa ggccgttgga ncttccanag gncncccca   780
ggggntccca angggcccac aa                                            802
```

```
        <210> 189
        <211> 807
        <212> DNA
        <213> Homo Sapiens

        <400> 189
aaaatggcgg cggcagcggt gtcgctttgt ttccgcggct cctgcggcgg tggcagtggt    60
agcggccttt gagctgtggg gaggttccag cagcagctac agtgacgact aagactccag   120
tgcatttcta tcgtaaccgg gcgcggggga gcgcagatcg gcgcccagca atcacagaag   180
ccgacaaggc gttcaagcga aaacatgacc gctgagccca tgagtgaaag caagttgaat   240
acattggtgc agaagcttca tgacttcctt gcacactcat cagaagaatc tgaagaaaca   300
agttctcctc cacgacttgc aatgaatcaa aacacagata aaatcagtgg ttctggaagt   360
aactctgata tgatggaaaa cagcaaggaa gagggaacta gctcttcaga aaaatccaag   420
tcttcaggat cgtcacgatc aaagaggaaa ccttcaattg taacaaagta tgtagaatca   480
gatgatgaaa aacctttgga tgatgaaact gtaaatgaag atgcgtcaa  tgaaaattca   540
gaaaatgata ttactatgca nagcttgcca aaaggtacag tgattgttca gccagagcca   600
gtgctgaatg aagacaaaga tgattttaaa ggggcctgaa tttagaagca gaagttaaaa   660
tgaaaactga naatctcaaa aaacgccgga gaanatgggc ttcatgggga ttgtgangcc   720
tgcactggcn tggtggacaa caaggtcaat caatttcaaa aaggttccat ttatagacaa   780
cccttcaatg caaggtcnta tttgtta                                       807
```

```
        <210> 190
        <211> 608
        <212> DNA
        <213> Homo Sapiens

        <400> 190
ccagttcttt ttttcccttc ttctggctca tcatctgaag atccatcctc atcagaggaa    60
agattggctt taatttcttc taaaagcatc ttcttggcaa ttctattctc aggatcattg   120
tcgtcatcat catcatccac tgtgacaggc actgatttag ataaggcttc atctcctgaa   180
gattggcaaa atccagtatg tgaagacagc actaaatttt cagtcacagg cttaattttc   240
tgttcatcgc tgcttccctc acctatagaa ttctgatcat catcttctat atcagaagaa   300
gatgaggatg taatgtcagc ttgcttcctt ttagtgcttg ttcttaggga gtttctcttt   360
ttctccttga caatgactgc cttctttttta gatgaagttc tttgcttctt cttttactta   420
tcttcangaa ctttcctcag catcagatga tgatgangcc actttgtatt ccttagtat    480
ttctctttga acttaaattt cttctttccc tcaattcgag tctttcagt caccttatca    540
gaagagttac aancatcttc tttcatggga agtatcaaga tgatgaacaa tcttgtcnct   600
tccttgaa                                                            608
```

```
<210> 191
<211> 786
<212> DNA
<213> Homo Sapiens

<400> 191
gcactttgct gatggtggac agtgaggagg agtacttccc tgaagagatc gccaagctcc      60
ggagggacgt ggacaacggc ctctcgctcg tcatcttcag tgactggtac aacacttctg     120
ttatgagaaa agtgaagttt tatgatgaaa acacaaggca gtggtggatg ccggataccg     180
gaggagctaa catcccagct ctgaatgagc tgctgtctgt gtggaacatg gggttcagcg     240
atggcctgta tgaaggggag ttcaccctgg ccaaccatga catgtattat gcgtcagggt     300
gcagcatcgc gaagtttcca gaagatggcg tcgtgataac acagactttc aaggaccaag     360
gattggaggt tttaaagcag gaaacagcag ttgttgaaaa cgtccccatt ttgggacttt     420
atcagattcc agctgagggt ggaggccgga ttgtactgta tggggactcc aattgcttgg     480
atgacagtca ccgacagaag gactgctttt ggcttctgga tgccctcctc cagtacacat     540
cgtatggggt gacaccgcct agcctcagtc actctgggaa ccgccagcgc cctcccantt     600
ggagcaagct cagtcactcc agagaggatg gaaggaaacc atctcatcgg tactccaagg     660
ttctggangg ccatttggga aaaccaaaac ctcgggctcn acaaccctgt ccangcctgt     720
nctgggccaa gccaanagcc tttaaaccan aacggngccc aattaacccct ttggaaaaca     780
tcagaa                                                                 786


<210> 192
<211> 819
<212> DNA
<213> Homo Sapiens

<400> 192
gacgggtaat acatatttat tgaaaatttt cttcaccgac aatggtgaaa tcaagacctc      60
aaattacaaa acatggtggc aggtgatact tacaaaaata aagcgaaggt ctatgtttta     120
cagatttgtg catgtttcct tcaaatctca gtctgtactg tcattaaaaa gatcatggaa     180
tctatgttgt tcctcatgat ggaatagtaa aaaaactgca ttccactgac aaaaaaaata     240
gctttgcttc caaatagcac aagtctttaa agtgactttt cccaacaata aatatagaaa     300
atagccttta acaagcgtct tttagcttgg tcagggttgt atcatttgtt tggaaagtac     360
atccttcccc tgcagtcaga agaccccaga cagcctttcc agttctcccg agtctttggt     420
gcgcacagct gccggcggga agtctcactg gcggcagagc cactaagtcc ctcctgacgg     480
gatccacagg aatcttctcg atgtaccagg agcctctgcc catcacagga gggcaggccc     540
atgtagaaca agactctaac aaacctgcag ctggaaactg gattccttt aaaccaaccc     600
gccaacacag ctcggntcac ccaccancgc cgtccgtnaa aggggctctc tgggcctcac     660
gggtcagcca ggttgccggt cacaccgaaa ggggtccttg ggcgggtgaa cctgctgcat     720
gaanctggcg gggngcttca accctgggct tcctccggct ttcggcctgg ncctgggcct     780
tgttgaantt gntccacaaa agaaaggcca ggagcaaca                            819


<210> 193
<211> 744
<212> DNA
<213> Homo Sapiens

<400> 193
cagtcccagc acaacctgca ggggcatctg tccagcctgt tggccaggct ccggcagcag      60
tgtctgctgt acctactggc agtcagattg caaatattgg tcagcaagca aacataccta     120
ctgcagtgca gcagccctct acccaggttc caccttcagt tattcagcag ggtgctcctc     180
catcttcgca agtggttcca cctgctcaaa ctgggattat tcatcaggga gttcaaacta     240
gtgctccaag ccttcctcaa caattggtta ttgcatccca aagttccttg ttaactgtgc     300
ctccccagcc acaaggagta gaatcagtag ctcaaggaat tgtttcacag cagttgcctg     360
cagttagttc tttgcccctct gctagtagta tttctgttac aagtcaggtt agttcaactg     420
```

```
gtccttctgg aatgccttct gccccaacaa acttggttcc accacaaaat atagcacaaa      480
cccctgctac ccaaaatggt aatttggttc aaagtgttaa gtcaacctcc cttgatagca      540
actaatacaa atttgccttt ggcacaacag ataccactaa gttctaccca agttctccgc      600
acaatcatta gctcaggcaa ttggaagcca aattgaagat gccaggcgtt gcagcggagc      660
cctccttaag ttggcttacc tcaagactaa tcagttggtg acaattgggg ggaatgttca      720
gcaagtttca agattgggaa gtta                                             744
```

```
        <210> 194
        <211> 567
        <212> DNA
        <213> Homo Sapiens


        <400> 194
atcaacattt atatgcttta ttgaaagttg acaagtgcaa cagttaaata cagtgacacc       60
ttacaattgt gtagagaaca tgcacagaaa catatgcata taactactat acaggtgata      120
tgcagaaacc cctactggga aatccatttc attagttaga actgagcatt tttcaaagta      180
ttcaaccagc tcaattgaaa gacttcagtg aacaaggatt tacttcagcg tattcagcag      240
ctagatttca ggattacaca aagtgagtaa ctgtgccaaa ttcttaaaat ttctttaggt      300
gtggtttttg tcatgtagca gtttttatgt agatcnatat ntaaaagtcc acacctcctc      360
agacangcca atgaaacnac taaatttcaa tctgtacaan ctaaatagta attacagtcc      420
tctangtgnn caangatact tacaccacat anacaaatnt acnntacgca naacaacctt      480
catggggaag gatagcccta ggtccccagc tancctgtca ccatttttgt cactctcata      540
gttttggtgt ccaatccatt ggttttg                                          567
```

```
        <210> 195
        <211> 771
        <212> DNA
        <213> Homo Sapiens


        <400> 195
gagagaacag agcaacaaga gcacaaagaa aaaaagaaga aatgaacaga ataagaacat       60
tagttgacaa tgcatacagc tgtgatccaa ggataaaaaa gttcaaggaa gaagaaaaag      120
ccaagaaaga ancanaaaag aaagcaaaag cagaagctaa acggaaggag caagaagcta      180
aagaaaaaca aagacaagct gaattagaag ctgctcggtt agctaaggag aaagaagagg      240
aggaagtcag acagcaagca ttgctggcaa agaaggaaaa agatatccag aaaaaagcca      300
ttaagaagga aaggcaaaaa tttcgaaact catgcaagac ctggaatcat ttttctgata      360
atgaggcaga gcgggttaaa atgatggaag aagtggaaaa actttgtgat cggcttgaac      420
tggcaagctt acagtgcttg aatgaaacac tcacatcatg cacaaaagaa gtnggaaagg      480
ctgctttgga aaaacagata gaagaaataa atgagcaaat cagaaaagag aaagaggaag      540
ctgaggctcg tatgcgacaa gcatctaaga acacagagaa atcaactggt ggaaggtgga      600
aaatggaagt aaaaattggg cacaaagatg ntctacaatt actaatttna aagctgtgaa      660
tcctgttncc tgctggaaca aantcaagat gggaagttat tgccaantac atgaacatac      720
attcctcccn cngggngtcc aaaaagaaac tgccaaaagn atgtttattg g               771
```

```
        <210> 196
        <211> 561
        <212> DNA
        <213> Homo Sapiens


        <400> 196
acagtatttt cagtttatt ataaaaatgc acacacaaca aagattgtca tttcttggct       60
ctacttgcat tcagcacttg ttcttgagca gctttctttg cttttaccat ctcgacaagt      120
tccttgtatc gtttcatgca gtccttcttt gtcctgccag gcaccgcttc tgctattttt      180
tcccatcttt caggtgtatt tactgggtat gttttcaaag cttgttccaa aagcttctgt      240
tcttctgttg tccaaggggt gaagtctgta tatggacctt caaatcgttc tgaaggcgtt      300
```

```
gcgttgtctg cttgaggtac cactccatgt tcttttttga acttatcaaa tgcctttta    360
tttangtcag ctttttgatg agggtcaagt ttttggagac tctttgcttt gccaataaca    420
tctttggnan gttcttttga ctccaagagg aagaangtnt ngttcatgtn antangcaan    480
aacgtcccat ctggaanttt tgttcnacca gggaacanac tcacaagctt taactaagta    540
antgtngnat naccgncngn c                                              561
```

        <210> 197
        <211> 691
        <212> DNA
        <213> Homo Sapiens

        <400> 197
```
cgccacaacc acaaccagca ccacagcctc caccacccca gcagcagccg caacagcagc     60
cgcagcctca gccccagcag cctccacccc cacccctcc ccagcagcag ccccgctgt     120
cacagtgtan tatgaataac agtttcaccc cagctcctat gatcatggag ataccagaat    180
ctggaagcac tgggaacata agtatctatg agaggattcc aggggatttt ggtgccggca    240
gctactctca accatcagcc accttcagcc tagccaagct gcagcagctg accaacacca    300
ttatggaccc tcatgccatg ccttatagcc attctcctgc tgtgacttcc tatgcaacca    360
gtgtttctct gtccaataca ggactggctc agctggctcc atctcatccc ttagctggga    420
ctcctcaagc acangccacc atgacgccac ccccaaactt ggcatccact accatgaacc    480
tcacatctcc tctgcttcag tgcaacatgt ctgccaccaa cattggcatt cctcacacgc    540
aggagattgc aagggcaaat gccagtgaag gggcacattt ccatccgctc caagtttggc    600
ggcactgccc tctgcngctg ctcaccanna ngcagctggt atgggccgtn tccccaatcg    660
ggcagtttgc caatgcaang gcttgggccc t                                   691
```

        <210> 198
        <211> 646
        <212> DNA
        <213> Homo Sapiens

        <400> 198
```
acctatccct ggagcaagta ataggaagag aatgggcaaa ctggttgcac gagagaaaag     60
agaatggagt tgggagcaac acatgaactt gcgttataac attctgctgt ccagatctgc    120
cctactgtgc tggtggtcgg tctgtccctc ttctcattag ccactcacag gagaggtgct    180
tgtgcactct gattcacagg ggatgaactc aggatctcaa aagacataca aaaactanag    240
gtatgtatca cttaagtagc tacgaaactc acaccgtgat ctcccttctg acacacatct    300
gcgccatctc ttccaacata aaatanactg tttcaatggt ttgtcagtta ttttttcaaat   360
cactaanatg tacagtcatc caccaacaat ttaagaaaga acctaagagg caaatcactg    420
gggactgcta tttgagtttt atcagtcaaa ggctcaagca tcaanaccct cagttancat    480
ttcaaagtac atactangaa acancgaggc tgggtggcgt tgtgtgcgtt anggctgatt    540
caccaggtgg taaancaaca aagnggttaa gnctccnctt tttggattgt taattgncca    600
tcctcnattc ctccaaaagg gctgggattt ggatttggca aagtca               646
```

        <210> 199
        <211> 811
        <212> DNA
        <213> Homo Sapiens

        <400> 199
```
cggcggcgct ccaggtgctg acagcgcgag agagcgcggc cctcaggagc aaggcgaatg     60
tatgacaaca tgtccacaat ggtgtacata aaggaagaca agttggagaa gcttacacag    120
gatgaaatta tttctaagac aaagcaagta attcaggggc tggaagcttt gaagaatgag    180
cacaattcca ttttacaaag tttgctggag acactgaagt gtttgaagaa agatgatgaa    240
agtaatttgg tggaggagaa atcaaacatg atccggaagt cactggagat gttggagctc    300
ggcctgagtg aggcacaggt tatgatggct ttgtcaaatc acctgaatgc tgtggagtcc    360
```

```
gagaagcaga aactgcgtgc gcaggttcgt cgtctgtgcc aggagaatca gtggctacgg      420
gatgaactgg ccaacacgca gcagaaactg cagaagagtg agcagtctgt ggctcaactg      480
gaggaggaga agaagcatct ggagtttatg aatcagctaa aaaaatatga tgacgacatt      540
tccccatccg aggacaaaga cactgattct accaaagagc ctctggatga ccttttcccc      600
aatgatgaag acgacccagg gcaaggaatc cagcagcagc acagcagtgc agccgcggct      660
gcccagcaag gcngctacna agattcccgc gcggctgcgg acgctccaca acctgggtga      720
ttcagttcgc ctcnncangg ggccgctacc aaggtaacct gttgcccct cctggcaaag      780
caaggnccct gggaagggan cctgggagga a                                     811
```

        <210> 200
        <211> 763
        <212> DNA
        <213> Homo Sapiens

        <400> 200
```
acacagtaaa tggatttat taatacagtt tatattacta agtacatatc tggcaaagct       60
acatgtatac agaaatcagg aacccccca aaaaggacag cagcaccgaa aggaatggcc      120
agttcacaga gaggtgcagc tctgacaaga tcctagaggc tgctagacac agcgggcagc      180
actggagaga gaagggaagc tgcgggaggc gccacccgtc atgcaggaga cagtgtgaga      240
gtcacgggcg gctaggccat gggacgctga gcaagtcagt taaccagccc gagcttcatt      300
ttcctcattt cctcccctcc gtcagggcca ctctcgtact tgaccacgtc cacgttgagg      360
ctctcacggc tcctgcgctt ctccatgttc tcaggtcat tgagcacttc tgccaccctc       420
tgtttgtgaa cattgtcaag accctgttta cgagacctca tagcagcttc ttctaacgtt      480
tctgcagctt caaatttgcc ttgacgtctg taaagtgccc caaggttttt tagagtggtt      540
gtaacagttg gnctatcaac tttgcangct ttgtaccaac cgccatactc tccaaaaaga      600
tgtcccatcc ttttgctttc ctttgcattc ttctctttcc tcaacaatgc atccaaatgg      660
gtttaatttc aacatctaca gaaccaaact cccttcatg tgcacaagtg agaatcnctt       720
tgtacantgt ttccgccttc cttgaacntt ccctgtttca aaa                       763
```

        <210> 201
        <211> 717
        <212> DNA
        <213> Homo Sapiens

        <400> 201
```
ggcgaatgta tgacaacatg tccacaatgg tgtacataaa ggaagacaag ttggagaagc       60
ttacacagga tgaaattatt tctaagacaa agcaagtaat tcagggctg gaagctttga      120
agaatganca caattccatt ttacaaagtt tgctggagac actgaagtgt ttgaagaaag      180
atgatgaaag taatttggtg gaggagaaat caaacatgat ccggaagtca ctggagatgt      240
tggagctcgg cctgagtgag gcacaggtta tgatggcttt gtcaaatcac ctgaatgctg      300
tggagtccga gaagcagaaa ctgcgtgcgc aggttcgtcg tctgtgccag gagaatcagt      360
ggctacggga tgaactggcc aacacgcagc aagaaactgc agaagagtga gcagtctgtg      420
gctcaactgg aggaggagaa gaagcatctg gagtttatga atcagctaaa aaaatatgat      480
gacgacattt ccccatccga gggacaaaga cactgattct accaaagagc ctccggatga      540
ccttttcccc aatgatgaag acgacccag gcaagggaa tccancagca gcacagcaan      600
ttgcagccgc ggctgcccaa gcaaggcggc tacgagattc cgccgcggc tgccggacgc      660
tccacaacct ggtnatcaa tacgccctcn caaggggcgc taccaagggt aactgtt        717
```

        <210> 202
        <211> 647
        <212> DNA
        <213> Homo Sapiens

        <400> 202
```
cagtcggagt gagtttatta gaagttagaa agacacaaat acacaaatca ctgagcactt       60
```

```
caagattagt agagaaaagc agaatgccca aatttcacac acagactaca cagcaaatgc    120
tactggggca tatcctaggg agacccggag tccgagcggg gcccccaggg ctctaagtac    180
cacggagcac gtgcggcaca tgccttgctg taaggcttag ttacgtcaac aggtcaccgt    240
catgccattg caacaacacc ttgtgtgaca cttaactacc tgttaccaaa gtgaacagct    300
aatcgctctt aatttttaaa ctcgtgtatt acacagtaaa tggatttttan taatacagtt    360
tatattacta agtacatatc tggcaaagct acatgtatac agaaatcagg aacccccca    420
aaaaggacag cagcaccgaa aggaatggcc agttcacaga nangtgcagc tctgacaaga    480
tcctagangc tgctagacac agcgggcagc actgganaa gagaagggaa gctgcgggag    540
gcgccaaccc gtcatgccag gggacagtgt ganagtcacg ggncgggcta ngccaatggg    600
aacncctgan gcaangcagt ttaaccangc cccgnggctt caatttt                  647
```

```
        <210> 203
        <211> 786
        <212> DNA
        <213> Homo Sapiens


        <400> 203
cagccatgga cgccatcaag aagaagatgc agatgctgaa gctggacaag gagaacgcca     60
tcgaccgcgc cgagcaggcc gaagccgaca agaagcaagc tgaggaccgc tgcaagcagc    120
tggaggagga gcagcaggcc ctccagaaga agctgaaggg gacagaggat gaggtggaaa    180
agtattctga atccgtgaag gaggcccagg agaaactgga gcaggccgag aagaaggcca    240
ctgatgctga ggcagatgtg gcctccctga accgccgcat tcagctggtt gaggaggagc    300
tggaccgggc ccaggagcgc ctggctacag ccctgcagaa gctggaggag gccgagaagg    360
cggctgatga gagcgagaga ggaatgaagg tcatcgaaaa ccgggccatg aaggatgagg    420
agaagatgga actgcaggag atgcagctga aggaggccaa gcacatcgct gaggattcag    480
accgcaaata tgaagaggtg gccaggaagc tggtgatcct ggaaggagag ctggagcgct    540
cggaggagan ggctgaggtg ccgagagcc gagccagaca gctggaggag gaacttcgaa     600
ccatggacca ngccctcaag tccctgatgg cctcanagga ggagtattcc accaaagaag    660
attaatatga agaggagatn aaactgttgg anggagaagc tgaanggagg ctganacccc    720
aagcaaaagt ttgccnaaaa ggtctgtggg caaaaatttg ggngaaaaac catcnaatga    780
acctta                                                               786
```

```
        <210> 204
        <211> 738
        <212> DNA
        <213> Homo Sapiens


        <400> 204
ggctagtaac atcagtttta ttgggttggg gtggcaacca tagcctggct gggggtgggg     60
ctggccctca caggttgttg agttccagca gggtctggtc caaggtctgg tgaatctcga    120
cgttctcctc cttggcactg gccaaggtct cttctaggtc atcgatggtt ttctccaact    180
ttgccacaga cctctcggca aactctgctc gggtctcagc ctccttcagc ttctcctcca    240
acagtttgat ctcctcttca tatttatctt ctttggtgga atactcctcc tctgaggcca    300
tcagggactt gagggcctgg tccatggttc gaagttcctc ctccagctgt ctggctcggc    360
tctcggccac ctcagccctc tcctccgagc gctccagctc tccttccagg atcaccagct    420
tcctggccac ctcttcatat ttgcggtctg aatcctcagc gatgtgcttg gcctccttca    480
gctgcatctc ctgcagttcc atcttctcct catccttcat ggcccggttt tcnatgacct    540
tcattcctct ctcgctctca tcagcccgcc ttctcggctc ctccagcttc tgcanggctg    600
tanccaangc gctcctgggc ccggtcaanc tcctcctcaa caagctgaat gcggcggttc    660
aaggaaggca anatctgcct caacaacaat tggccttctt cncggccngc tccaattttc    720
nccngggggcc tccttcaa                                                 738
```

```
        <210> 205
        <211> 818
        <212> DNA
```

<213> Homo Sapiens

<400> 205
```
gctagtaaca tcagtttat tgggttgggg tggcaaccat agcctggctg ggggtggggc    60
tggccctcac aggttgttga gttccagcag ggtctggtcc aaggtctggt gaatctcgac   120
gttctcctcc ttggcactgg ccaaggtctc ttctaggtca tcgatggttt tctccaactt   180
tgccacagac ctctcggcaa actctgctcg ggtctcagcc tccttcagct tctcctccaa   240
cagtttgatc tcctcttcat atttatcttc tttggtggaa tactcctcct ctgaggccat   300
cagggacttg agggcctggt ccatggttcg aagttcctcc tccagctgtc tggctcggct   360
ctcggccacc tcagccctct cctccgagcg ctccagctct ccttccagga tcaccanctt   420
cctggccacc tcttcatatt tgcggtctga atcctcagcg atgtgcttgg cctccttcag   480
ctgcatctcc tgcagttcca tcttctcctc atccttcaag gcccggtttt cgatgancct   540
tcattcctct ctcggctctc atcagccgcc ttctcgggct cntccaagct tctgcaaggc   600
tgtanncann ggctcctggg gcccgggtnc aagntcctcc tcaaacangc tnaaatncca   660
gagggtttca nggaagggcc aaaatctggc ctnnagnatc aattggcttt cttncncggg   720
nctngcncca attttctccn ggggcctncc tttcangggg tnaagaanaa atttcaaatt   780
caacctcggt tccccttnaa cntcntnctg gaagggct                          818
```

<210> 206
<211> 927
<212> DNA
<213> Homo Sapiens

<400> 206
```
cagccatgga cgccatcaag aagaagatgc agatgctgaa gctggacaag gagaacgcca    60
tcgaccgcgc cgagcaggcc gaagccgaca agaagcaagc tgaggaccgc tgcaagcagc   120
tggaggagga gcagcaggcc ctccagaaga agctgaaggg gacagaggat gaggtggaaa   180
agtattctga atccgtgaag gaggcccagg agaaactgga gcaggccgag aagaaggcca   240
ctgatgctga ggcagatgtg gcctccctga accgccgcat tcagctggtt gaggaggagc   300
tggaccgggc ccaggagcgc ctggctacag ccctgcagaa gctggaggag gccgagaagg   360
cggctgatga gagcgagaga ggaatgaagg tcatcgaaaa ccgggccatg aaggatgagg   420
agaagatgga actgcaggag atgcagctga aggaggccaa gcacatcgct gaggattcag   480
accgcaaata tgaagaggtg gccaggaagc tggtgatcct ggaaggagag ctggagcgct   540
cggaggagag ggctgaggtg gccgagagcc gagccagaca gctggaggag gaacttcgaa   600
ccatggacca ggccctcaag tccctgatgg cctcagagga ggagtattcc accaaagaag   660
ataaatatga agaggagatc aaactgttgg aggagaagct gaaggaggct gagaccccgag   720
cagagtttgc cgagaggtct gtggcaaagt tggagaaaac catcgatgac ctagaagaga   780
ccttggccag tgccaaggag gagaacgtcg agattcacca gaccttggac cagaccctgc   840
tggaactcaa caacctgtga gggccagccc cacccccagc caggctatgg ttgccacccc   900
aacccaataa aactgatgtt actagcc                                      927
```

<210> 207
<211> 910
<212> DNA
<213> Homo Sapiens

<400> 207
```
ggaagatggc ggcggccgtt ccacagcggg cgtggaccgt ggagcagctg cgcagtgagc    60
agctgcccaa gaaggacatt atcaagtttc tgcaggaaca cggttcagat tcgtttcttg   120
cagaacataa attattagga aacattaaaa atgtggccaa gacagctaac aaggaccact   180
tggttacagc ctataaccat ctttttgaaa ctaagcgttt taagggtact gaaagtataa   240
gtaaagtgtc tgagcaagta aaaaatgtga agcttaatga agataaaccc aaagaaacca   300
agtctgaaga gaccctggat gagggtccac caaaatatac taaatctgtt ctgaaaaagg   360
gagataaaac caactttccc aaaaagggag atgttgttca ctgctggtat acaggaacac   420
tacaagatgg gactgtttt gatactaata ttcaaacaag tgcaagaag aagaaaaatg   480
```

```
ccaagccttt aagttttaag gtcggagtag gcaaagttat cagaggatgg gatgaagctc       540
tcttgactat gagtaaagga gaaaangctc gactggagat tgaaccagaa tgggcttacg       600
gaaagaaagg acagcctgat gccaaaattc caccaaatgc aaaactcact tttgaagtgg       660
nantatggga tattgattga aatagcagtg cntcagctcn aggntattag caacaatgat       720
taaaacntgg ncttgaaaga aaatttcaca actagttnag aaacttgtta ccaaatggta       780
aaggaaaaag tcaactggga aaaattcaag ggngttaana aaaanttggt ttacctgggg       840
cccaagcctt ttgngaaaaa aaaanccect tatgaaancc ccngggccca aaaanacttt       900
tccnaaaacc                                                             910
```

```
        <210> 208
        <211> 745
        <212> DNA
        <213> Homo Sapiens

        <400> 208
gacagtggat caatttttat tgagccactt aagtttacaa catgaggtaa aaggaaaaag        60
ttctccttga ccagtatttt acacagctgt aggaaagtat tttagaccag ggattcataa       120
gggatttatc tctcaaaagc tgggaccaag taaacaaatt ttattaactc cttgaatttt       180
ccagttgact cttcctttac aatagtaaca agttctaact agttgtgtaa atttcttcaa       240
ggccaagttt tatcattgtt gctaatatcc ttagagctga agcactgcta tttcaatcaa       300
tatccactaa ttccacttca aaagtgagtt ttgcatttgg tggaattttg gcatcaggct       360
gtcctttctt tccgtaagcc cattctggtt caatctccag tcgagccttt tctcctttac       420
tcatagtcaa gagagcttca tcccatcctc tgataacttt gcctactccg accttaaaac       480
ttaaaggctt ggcatttttc ttcttctttg cacttgtttg aatattagta tcaaaaacag       540
tcccatcttg tagtgttcct gtataccaag caagtgaaca acatcnccct tttgggaaa        600
gttggtttaa cccccttttt cagaacagat ttaagtanat tttgggggac cctcanccaa       660
ggggtcnctt canaactggg tttccttggg gtttaaccct cattnagcct canaattttt       720
tacntggccn cagacacttt tactt                                            745
```

```
        <210> 209
        <211> 965
        <212> DNA
        <213> Homo Sapiens

        <400> 209
ggaagatggc ggcggccgtt ccacagcggg cgtggaccgt ggagcagctg cgcagtgagc        60
agctgcccaa gaaggacatt atcaagtttc tgcaggaaca cggttcagat tcgtttcttg       120
cagaacataa attattagga aacattaaaa atgtggccaa gacagctaac aaggaccact       180
tggttacagc ctataaccat cttttgaaa ctaagcgttt taagggtact gaaagtataa        240
gtaaagtgtc tgagcaagta aaaaatgtga agcttaatga agataaaccc aaagaaacca       300
agtctgaaga gaccctggat gagggtccac caaaatatac taaatctgtt ctgaaaaagg       360
gagataaaac caactttccc aaaaagggag atgttgttca ctgctggtat acaggaacac       420
tacaagatgg gactgttttt gatactaata ttcaaacaag tgcaaagaag aagaaaaatg       480
ccaagccttt aagttttaag gtcggagtag gcaaagttat cagaggatgg gatgaagctc       540
tcttgactat gagtaaagga gaaaaggctc gactggagat tgaaccaaga atgggcttac       600
ggaaagaaag gacagcctga tgccaaaatt ccaccaaatg caaaactcac ttttgaagtg       660
gaattagtgg atattgattg aaatagcagt gcttcagcct ccaagggata ttagcaacaa       720
tgaataaaac tttggncttg angaaaattt acacaaccta gtttagaacc ttgttactat       780
tgttaaagga aagaagtcaa ctgggnaaaa ttcaagggag ttaataaaat ttgtttactt       840
ggncccagcc ttttgagaga taaatccctt angaaancct ggtccnaaaa tactttccta       900
aagnctgtgt taaataccng ggncaagggn gaaacttttt ccctttaccn caagggtggt       960
aaact                                                                  965
```

```
        <210> 210
        <211> 867
```

```
<212> DNA
<213> Homo Sapiens

<400> 210
caagacagtg gatcaatttt tattgagcca cttaagttta caacatgagg taaaaggaaa      60
aagttctcct tgaccagtat tttacacagc tgtaggaaag tattttagac cagggattca     120
taagggattt atctctcaaa agctgggacc aagtaaacaa attttattaa ctccttgaat     180
tttccagttg actcttcctt tacaatagta acaagttcta actagttgtg taaatttctt     240
caaggccaag tttttatcatt gttgctaata tccttagagc tgaagcactg ctatttcaat    300
caatatccac taattccact tcaaaagtga gttttgcatt tggtggaatt ttggcatcag     360
gctgtccttt ctttccgtaa gcccattctg gttcaatctc cagtcgagcc ttttctcctt     420
tactcatagt caagagagct tcatcccatc ctctgataac tttgcctact ccgaccttaa     480
aacttaaagg cttggcattt ttcttcttct ttgcacttgt ttgaatatta gtatcaaaaa     540
cagtcccatc ttgtagtgtt cctgtatacc angcagtgaa caacatctcc ctttttggga     600
aagtttgggt ttaactccct tttttcagaa caagatttag taaaatttg gnnggaccct      660
caatccaagg gtctcttcaa nacttgggtt cctttggggt ttaanccta attaagcctc      720
acaattttt acttggctca agaaancntt tacttaaacc tttcaggtac cctttaaaaa      780
nccttangtt ttaaaaaaa tgggttataa gggctggtaa ccnaaggttg ggcccttggt      840
aaccngttct tggggcaaaa ttttaa                                          867


<210> 211
<211> 972
<212> DNA
<213> Homo Sapiens

<400> 211
ggaagatggc ggcggccgtt ccacagcggg cgtggaccgt ggagcagctg cgcagtgagc      60
agctgcccaa gaaggacatt atcaagtttc tgcaggaaca cggttcagat tcgtttcttg     120
cagaacataa attattagga aacattaaaa atgtggccaa gacagctaac aaggaccact     180
tggttacagc ctataaccat ctttttgaaa ctaagcgttt taagggtact gaaagtataa     240
gtaaagtgtc tgagcaagta aaaaatgtga agcttaatga agataaaccc aaagaaacca     300
agtctgaaga gaccctggat gagggtccac caaaatatac taaatctgtt ctgaaaaagg     360
gagataaaac caactttccc aaaaagggag atgttgttca ctgctggtat acaggaacac     420
tacaagatgg gactgttttt gatactaata ttcaaacaag tgcaaagaag aagaaaaatg     480
ccaagccttt aagtttaag gtcggagtag gcaaagttat cagaggatgg gatgaagctc      540
tcttgactat gagtaaagga gaaaaggctc gactggagat tgaaccagaa tgggcttacg     600
gaaagaaagg acagcctgat gccaaaattc caccaaatgc aaaactcact tttgaagtgg     660
aattagtgga tattgattga aatagcagtg cttcagctct aaggatatta gcaacaatga     720
taaaacttgg ccttgaagaa atttacacaa ctagttagaa cttgttacta ttgtaaagga     780
agagtcaact ggaaaattca aggagttaat aaaatttgtt tacttggtcc cagcttttga     840
gagataaatc ccttatgaat ccctggtcta aaatactttc ctacagctgt gtaaaatact     900
ggtcaaggag aactttttcc ttttacctca tgttgtaaac ttaagtggct caataaaaat     960
tgatccactg tc                                                         972


<210> 212
<211> 817
<212> DNA
<213> Homo Sapiens

<400> 212
aacggctcta agggttatgc ctttgtccac ttcgagaccc aagaggctgc cgacaaggcc      60
atcgagaaga tgaatggcat gctcctcaat gaccgcaaag tatttgtggg cagattcaag     120
tctcgcaaag agcgggaagc tgagcttgga gccaaagcca aggaattcac caatgtttat     180
atcaaaaact ttgggggaaga ggtggatgat gagagtctga aagagctatt cagtcagttt     240
ggtaagaccc taagtgtcaa ggtgatgaga gatcccaatg ggaaatccaa aggctttggc     300
```

```
tttgtgagtt acgaaaaaca cgaggatgcc aataaggctg tggaagagat gaatggaaaa   360
gaaataagtg gtaaaatcat atttgtaggc cgtgcacaaa agaaagtaga acggcaggca   420
gagttaaaac ggaaatttga acagttgaaa caggagagaa ttagtcgata tcaggggggtg   480
aatctctaca ttaagaactt ggatgacact attgatgatg agaaattaag gaaagaattt   540
tctcctttg gatcaattac cagtgctaag gtaatgctgg aggatggaag aagcaaaggg    600
tttggcttcg tctgcttctc atctcctgaa gaancaacca aagcagtcac tggagatgaa   660
tggacgcatt ttgggggctcc aaccactata tgttgccctg gccccanagg aagggaanag   720
agaaaggntc accttgacca accagtttta tgcaacgaan tggctgggaa tngagaacca   780
cttcccngcc aatgccaatc tttaaantca gnttcca                           817
```

        <210> 213
        <211> 756
        <212> DNA
        <213> Homo Sapiens

        <400> 213
```
ctttgatgtg attaagggaa agccaatccg catcatgtgg tctcagaggg atccctcttt   60
gagaaaatct ggtgtgggaa acgtcttcat caagaacctg gacaaatcta tagataacaa   120
ggcactttat gatactttt ctgcttttgg aaacatactg tcctgcaagg tggtgtgtga   180
tgagaacggc tctaagggtt atgcctttgt ccacttcgag acccaagagg ctgccgacaa   240
ggccatcgag aagatgaatg gcatgctcct caatgaccgc aaagtatttg tgggcagatt   300
caagtctcgc aaagagcggg aagctgagct tggagccaaa gccaggaat tcaccaatgt     360
ttatatcaaa aactttgggg aagaggtgga tgatgagagt ctgaaagagc tattcagtca   420
gtttggtaag acccctaagtg tcaaggtgat gagagatccc aatgggaaat ccaaaggctt   480
tggctttgtg agttacgaaa aacacgagga tgccaataag gctgtggaag agatgaatgg   540
aaaagaaata agtggtaaaa tcatatttgt aggccgtgca caaaagaaag tagaacggca   600
agcagagtta aaacggaaat ttgaacagtt gaaacaggag agaattagtc gatatcangg   660
ggtgaatccc cacattaaga acttggatga cactattgat gatgaagaaa attaaggaaa   720
agaatttttcn ccntttggga tnaattaaca agttgc                            756
```

        <210> 214
        <211> 728
        <212> DNA
        <213> Homo Sapiens

        <400> 214
```
atggagattt tttttctttа ttgggaaacg taagacttgg gtacatcaaa taaaaccaat   60
ttctgggggga aaaatcaaa ncccacaata aaaaaaaagt taacactgtc tgggccacag   120
cagaacccaa agaacatatt cgtataattg aaaaattcta ggtgcttcat aattgacctt   180
ttgatacaaa atgacctatt aaatttgcaa tttgtaatcc ttggtgttga ggtccatagg   240
acaagctagg aagtcttcaa accttgagtt gaattccata aggggttatt tggctttga    300
atcggttttt ccttgtctaa gaggtagcag cagcaacagc gcccaccttc tgggcagctt   360
ctttcttggc atgatgagcc tgtagaactg ctacagcttc atccaccttg gagcggagag   420
actcggggga ctctaacatg tgcagcagct canagttgtc tatctccagc agcattcccg   480
tgatcttccc agccagattt gaatgcattg tttggatgan tgggaacaag cgttctccca   540
gcatctgctt ctgttcctgg ggggggtgctg canccaacag gaggcaatca ntggntccng   600
gccctgcaca tggaccgcaa ggctggggtg cctgcaaaan gctgtatggc aaggatgaag   660
ggctgccgac actgggaagg cggtattngt aggggggcaa aaancccggg gaagcancag   720
caacaaca                                                            728
```

        <210> 215
        <211> 710
        <212> DNA
        <213> Homo Sapiens

<400> 215

```
atgganattt ttttctttta ttgggaaacg taagacttgg gtacatcaaa taaaaccaaa      60
atctggggga aaaaatcaaa acccacaata aaaaaaaagt taacactgtc tgggccacag     120
canaacccaa agaacatatt cgtataattg aaaaattcta ggtgcttcan aattgacctt     180
ttgatacaaa atgacctatt aaatttgcaa tttgtaancc ttggtgttga ggtccatagg     240
acaagctagg aagtcttcaa accttgagtt gaattccana aggggttatt tggcttttga     300
atcggttttt ccttgtctaa naggtagcag cagcaacagc gcccaccttc tgggcagctt     360
ctttcttggc atgatgagcc tgtanaactg ctacagcttc atccaccttg gagcgganag     420
actcggggga ctctaacatg tgcagcagct canagttgtc tatctccagc agcattcccg     480
tgatcttccc agccagattt gaatgcattg tttggatgan tgggaacaag cgttctccca     540
gcatctgctt ctgttcctgn ggggtgctg canccangca tggaggcaan tcagtggctc      600
ctgcccctgc acaatggacc gcaaggctgg ggggtgcctg canaaggctg tttgggcaag     660
gangaagggc ctgcggaana ctgggangcg tatttgttan gggggggcaaa              710
```

<210> 216
<211> 824
<212> DNA
<213> Homo Sapiens

<400> 216

```
catggcctcc ctgtacgtgg gcgacctgca ttcggacgtc accgaggcca tgctgtacga      60
aaagttcagc cccgcggggc ctgtgctgtc catccgggtc tgccgcgata tgatcacccg     120
ccgctccctg ggctatgcct acgtcaactt ccagcagccg gccgacgctg agcgggcttt     180
ggacaccatg aactttgatg tgattaaggg aaagccaatc cgcatcatgt ggtctcagag     240
ggatccctct ttgagaaaat ctggtgtggg aaacgtcttc atcaagaacc tggacaaatc     300
tatagataac aaggcacttt atgatacttt ttctgctttt ggaaacatac tgtcctgcaa     360
ggtggtgtgt gatgagaacg gctctaaggg ttatgccttt gtccacttcg agacccaaga     420
ggctgccgac aaggccatcg agaagatgaa tggcatgctc ctcaatgacc gcaaagtatt     480
tgtgggcaga ttcaagtctc gcaaagagcg ggaagctgag cttggagcca aagccaagga     540
attcaccaat gtttatatca aaactttgg ggaanaggtg gatgatgaga gtctgaaaga     600
agctattcan tcaagtttgg taagacccta agtgtcaang tgatgagaga tccaatggga     660
aatccaaaag gctttgggct ttgtgagttn acgaaaaaca cnaggatgcc aataaggctg     720
ttggaaagaa atgaatggga aaagaaataa antggtaaaa tcataatttg tagggccgtn     780
cacaaaaaga aagtttaaac gggnaggcaa aatttaaaac cggg                     824
```

<210> 217
<211> 749
<212> DNA
<213> Homo Sapiens

<400> 217

```
atggagattt ttttctttta ttgggaaacg taagacttgg gtacatcaaa taaaaccaat      60
ttctggggga aaaaatcaaa acccacaata aaaaaaaagt taacactgtc tgggccacag     120
cagaacccaa agaacatatt cgtataattg aaaaattcta ggtgcttcat aattgacctt     180
ttgatacaaa atgacctatt aaatttgcaa tttgtaatcc ttggtgttga ggtccatagg     240
acaagctagg aagtcttcaa accttgagtt gaattccata aggggttatt tggcttttga     300
atcggttttt ccttgtctaa gaggtagcag cagcaacagc gcccaccttc tgggcagctt     360
ctttcttggc atgatgagcc tgtagaactg ctacagcttc atccaccttg gagcggagag     420
actcggggga ctctaacatg tgcagcagct cagagttgtc tatctccagc agcattcccg     480
tgatcttccc agccaagatt tgaatgcatt gtttggatga gtgggaacaa gcgttctccc     540
agcatctgcn tctgttcctg ggggggtgct gcatccagca tgggangcan tcagtggctc     600
ctgcccctgc acatgggacc gcaaggctgg ggtgcctgca naggctgtat gggaaggatg     660
nagggctgcc ggncaactgg ganggcgtat ttgtaggggg caaacaagcc cggggaagca     720
nccagcagca acancaacng cttggcgcc                                        749
```

```
<210> 218
<211> 600
<212> DNA
<213> Homo Sapiens

<400> 218
ctttattggg aaacgtaaga cttgggtaca tcaaataaaa ccaatttctg ggggaaaaaa        60
tcaaaaccca caataaaaaa aaagttaaca ctgtctgggc cacagcagaa cccaaagaac       120
atattcgtat aattgaaaaa ttctaggtgc ttcataattg acctttgat acaaaatgac       180
ctattaaatt tgcaatttgt aatccttggt gttgaggtcc ataggacaag ctaggaagtc       240
ttcaaaccttt gagttgaatt ccataagggg ttatttggct tttgaatcgg ttttttccttg     300
tctaagaggt agcancagca acagcgccca ccttctgggc agcttctttc ttggcatgat       360
gancctgtag aactgctaca gcttcatcna ccttggagcg gngagactcg ggggactcta       420
acatgtgcag cagctcagag ttgtcnatct ccaagcagca ttcccgtgat cttcccagcc       480
anatttgaat gcattgtttg ggatgangtg gggaanaagc gttctcncag canncngctt       540
cnggtnccnn ggaggggggt gcntgcaagc ccagcattga aggcaagttc antggctcct       600


<210> 219
<211> 1077
<212> DNA
<213> Homo Sapiens

<400> 219
catggcctcc ctgtacgtgg gcgacctgca ttcggacgtc accgaggcca tgctgtacga        60
aaagttcagc cccgcggggc ctgtgctgtc catccgggtc tgccgcgata tgatcacccg       120
ccgctccctg ggctatgcct acgtcaactt ccagcagccg gccgacgctg agcgggcttt       180
ggacaccatg aactttgatg tgattaaggg aaagccaatc cgcatcatgt ggtctcagag       240
ggatccctct ttgagaaaat ctggtgtggg aaacgtcttc atcaagaacc tggacaaatc       300
tatagataac aaggcacttt atgatacttt ttctgctttt ggaaacatac tgtcctgcaa       360
ggtggtgtgt gatgagaacg gctctaaggg ttatgccttt gtccacttcg agacccaaga       420
ggctgccgac aaggccatcg agaagatgaa tggcatgctc ctcaatgacc gcaaagtatt       480
tgtgggcaga ttcaagtctc gcaaagagcg ggaagctgag cttggagcca aagccaagga       540
attcaccaat gtttatatca aaaactttgg ggaagaggtg gatgatgaga gtctgaaaga       600
gctattcagt cagtttggta agaccctaag tgtcaaggtg atgagagatc ccaatgggaa       660
atccaaaggc tttggctttg tgagttacga aaaacacgag gatgccaata aggctgtgga       720
agagatgaat ggaaaagaaa taagtggtaa aatcatattt gtaggccgtg cacaaaagaa       780
agtagaacgg caagcagagt taaaacggaa atttgaacag ttgaaacagg agagaattag       840
tcgatatcan ggggtgaatc cccacattaa gaacttggat gacactattg atgatgagaa       900
attaaggaaa gaattttctc cttttggatc aattaccagt gctaaggtaa tgctggagga       960
tggaagaagc aaagggtttg gcttcgtctg cttctcatct cctgaagaan caaccaaagc      1020
agtcactgga gatgaatgga cgcattttgg ggctccaacc actatatgtt gccctgg        1077


<210> 220
<211> 1007
<212> DNA
<213> Homo Sapiens

<400> 220
actacatcga tcgcgtggac gagcccttgt cctgctctta tgtgctgacc attcgcactc        60
ctcggctctg cccccaccct ctcctccggc ccccacccag tgctgcaccg caggccatcc       120
tctgtcaccc ttccctacag cctgaggagt acatggccta cgttcagagg caagccgact       180
caaagcagta tggagataaa atcatagagg agctgcaaga tctaggcccc caagtgtgga       240
gtgagaccaa gtctgggggtg gcaccccaaa agatggcagg tgcgagcccg accaaggatg       300
acagtaagga ctcagatttc tggaagatgc ttaatgagcc agaggaccag gccccaggag       360
gggaggaggt gccggctgag gagcaggacc caagccctga ggcagcagat tcagcttctg       420
```

```
gtgctcccaa tgattttcag aacaacgtgc aggtcaaagt cattcgaagc cctgcggatt     480
tgattcgatt catagaggag ctgaaaggtg gaacaaaaaa ggggaagcca aatataggcc     540
aagagcagcc tgtggatgat gctgcagaag tccctcagag ggaaccagag aaggaaaggg     600
gtgatccaga acggcagaga gagatggaag aagaggagga tgaggatgag gatgaggatg     660
aagatgagga tgaacggcag ttactgggag aatttgagaa ngaactggaa gggatcctgc     720
ttccgtcaga ccgagaccgg ctccgttcgg aggtgaangc tggcatggag ccgggaactg     780
gnaaacatca tccaggagac angagaaaga nctgggaccc anatggggct gaagaangga     840
tcagaatccg ggatcgggca atgctggctc tcaaaatcaa ctctcaacaa antcattaaa     900
aagactggag ggaaaaacaa gagttccaaa ncctggtgaa nnaagcncat aaaaaagaag     960
gttgtcccaa aaaagnctcc cccatcaanc caaccctnca gggaaaa                  1007
```

        <210> 221
        <211> 833
        <212> DNA
        <213> Homo Sapiens

        <400> 221
```
ccgactcaaa gcagtatgga gataaaatca tagaggagct gcaagatcta ggcccccaag      60
tgtggagtga gaccaagtct ggggtggcac cccaaaagat ggcaggtgcg agcccgacca     120
aggatgacag taaggactca gatttctgga agatgcttaa tgagccagag gaccaggccc     180
caggagggga ggaggtgccg gctgaggagc aggacccaag ccctgaggca gcagattcag     240
cttctggtgc tcccaatgat tttcagaaca acgtgcaggt caaagtcatt cgaagccctg     300
cggatttgat tcgattcata gaggagctga aaggtggaac aaaaaagggg aagccaaata     360
taggccaaga gcagcctgtg gatgatgctg cagaagtccc tcagagggaa ccagagaagg     420
aaaggggtga tccagaacgg cagagagaga tggaagaaga ggaggatgag gatgaggatg     480
aggatgaaga tgaggatgaa cggcagttac tgggagaatt tgagaangaa ctggaaggga     540
tcctgcttcc gtcagaccga gaccggctcc gttcggaggt gaangctggc atggagccgg     600
gaactggnaa acatcatcca ggagacanga gaaaganctg ggacccanat ggggctgaag     660
aanggatcag aatccgggat cgggcaatgc tggctctcaa aatcaactct caacaaantc     720
attaaaaaga ctggagggaa aaacaagagt ccaaanccct ggtgaannaa gcncataaaa     780
aagaaggttg tcccaaaaaa gnctccccca tcaanccaac cctncaggga aaa           833
```

        <210> 222
        <211> 745
        <212> DNA
        <213> Homo Sapiens

        <400> 222
```
ggattgatgg tccagttgtt tatttagaaa cctgattgtt caagaacatg gtgggtgctt      60
cacacctttt tcactgggat tgtgctggag gtgataggca gcattctacc atttcctcag     120
caacagaggt gaaggctcct caactcagaa gcacaaattg taggggacag ggtgggcagg     180
gaaagggaga aggaaatccc aaggcaattc aatagaagag ggtaaaacga ctccaaacat     240
cactaagggc aggtgggggc ctgcttgctc agtgcctgct aagtgtcctg ccctccttgc     300
tctctctacc cacctccact caaaagatcc tactgaatct ccaggtaggc agcagggaat     360
atcctatcat taggggacaa taacaggaaa agccacagag gagaggaaga ggattgagtg     420
agagttcagg agagcaaata tcacaggccc ggtgaggtct caaggtggct gccagcaggg     480
gcagcaagca ttcacccagg gcccccacac ccacagagtt gcccgagang tccacaagct     540
cagctccact ctgctgtttg gccctcaagg gttccagggt ggggaagtgg ggaagaggca     600
ngccagtcca ggaagatctg gattccgtga anggtcaag tgtagtgttg gtctcagaag     660
tcaaattntc caagtcccct gttgccctcc ccacctggag aagccccana cccggnggta     720
attgctcncc anctccttct gccgc                                         745
```

        <210> 223
        <211> 747
        <212> DNA

<213> Homo Sapiens

<400> 223
```
actacatcga tcgcgtggac gagcccttgt cctgctctta tgtgctgacc attcgcactc    60
ctcggctctg cccccaccct ctcctccggc ccccacccag tgctgcaccg caggccatcc   120
tctgtcaccc ttccctacag cctgaggagt acatggccta cgttcagagg caagccgact   180
caaagcagta tggagataaa atcatagagg agctgcaaga tctaggcccc caagtgtgga   240
gtgagaccaa gtctggggtg gcaccccaaa agatggcagg tgcgagcccg accaaggatg   300
acagtaagga ctcagatttc tggaagatgc ttaatgagcc agaggaccag gccccaggag   360
gggaggaggt gccggctgag gagcaggacc caagccctga ggcagcagat tcagcttctg   420
gtgctcccaa tgattttcag aacaacgtgc aggtcaaagt cattcgaagc cctgcggatt   480
tgattcgatt catagaggag ctgaaaggtg gaacaaaaaa ggggaagcca aatataggcc   540
aagagcagcc tgtggatgat gctgcagaag tccctcagag ggaaccagag aangaaaggg   600
gtgatccaga acggcagaga gagatgggaa ngaagangan gatgaggatg aggatgaggg   660
atgaaagann aaggatgaaa cgggcaagtt actggggaan aattttgana aagggaactg   720
ggaaagggat tcctggcttt ccgttca                                       747
```

<210> 224
<211> 618
<212> DNA
<213> Homo Sapiens

<400> 224
```
gatggtccag ttgtttattt agaaacctga ttgttcaaga acatggtggg tgcttcacac    60
cttttttcgct gggattgtgc tggaggtgat aggcagcatt ctaccatttc ctcagcaaca   120
gaggtgaagg ctcctcaact cagaagcaca aattgtaggg gacagggtgg gcagggaaag   180
ggagaaggaa atcccaaggc aattcaatag aagagggtaa aacgactcca aacatcacta   240
agggcaggtg ggggcctgct tgctcagtgc ctgctaagtg tcctgccctc cttgctctct   300
ctacccacct ccactcaaaa gatcctactg aatctccagg tangcancan ggaatatcct   360
atcattaggg gacaatanca ggaaaagcca cagaggagag gaagaggatt gagtganaag   420
ttcangacag caaattatca caggcccggt gaggtctcaa ngtgngctgc caacaagggg   480
caancagcat tcacccangg gccccacacc cacnnnagtt gccccagagg tccacanctc   540
ancctcccan ctgccngttt ggccctcaag gggttccaan gttcgngaaa gtgggggagg   600
aaggcanccc antcccag                                                 618
```

<210> 225
<211> 765
<212> DNA
<213> Homo Sapiens

<400> 225
```
caaacatcag agactgcatg ctggagagaa acttgaagaa tgtgagaaaa ccttcagcaa    60
ggatgaggag cttagaaaag agcagagaac tcaccaggaa aagaaagttt attggtgtaa   120
tcagtgtagt aggaccttcc agggcagctc agatctcatc agacatcagg taactcatac   180
aagagagaaa ccatatgaat gtaaagaatg tgggaaaact caatcagagc tcagaccttc   240
tgagacatca tagaattcac agtggagaaa aaccttacgt atgcaataaa tgtgggggaat   300
cttttaggag cagctcagat cttattaaac accatcgtgt tcatactgga gagaaacctc   360
atgaatgtag tgaatgtggg aaagtcttta gccagaggtc ccaccttgtc acacaccaga   420
aaatccacac tggagagaag ccctatcagt gcactgaatg tgaaaaagcc ttcaggcggc   480
gttcactcct tattcaacgt cggagaattc atagtggtga gaaaccctat gaatgtaagg   540
aatgtgggaa actcttcatg tggcacacag ctttcctcaa acatcagaga ctgcatgctg   600
gagagaaact tgaagaatgt gagaaaacct tcagcaagga tganggagct taggggagag   660
cagaaaattc accanggaag agaaagcctt attgggngta atcagtgtgg tanggctttc   720
caagggcagc tcangacctc atcgggccat caggtaactc aatac                   765
```

```
<210> 226
<211> 791
<212> DNA
<213> Homo Sapiens

<400> 226
tggatccaaa gcacccctgg cactgttgtt tatggcccac ctcctgctgg ggcccccatg      60
gtgtatgggc ctccacccc caacttctcc atcccctcca tccctatggg tgtgctgcat      120
tgcaacgtcc ctgaacacca taacttagag aatgaagttt ctagattaga agacataatg      180
cagcatttaa aatcaaagaa gcgggaagaa aggtggatga gagcatccaa gcggcagtcg      240
gagaaagaaa tggaagaact gcatcataat attgatgatc ttttgcaaga gaagaaaagc      300
ttagagtgtg aagtagaaga attacataga actgtccaga aacgtcaaca gcaaaaggac      360
ttcattgatg gaaatgtaga gagtcttatg actgaactag aaatagaaaa atcactcaaa      420
catcatgaag atattgtaga tgaaattgag tgcattgaga agactcttct gaaacgtcgc      480
tcanagctca gggaagctga ccgactcctg gcagaggctg agagtgaact ttcatgcact      540
aaagaaaaga caaaaaatgc tgttgaaaag ttcactgatg ccaagagaag tttattgcaa      600
actgagtcag atgctgaggg aattagaaag gagagctcan gaaactgctg ttaanctcgt      660
caaanctgat cagcagctaa gatcgctcca agctgatgca aaaggatttg gancancaca      720
angatcaagc aagaagaaat cttgaaaaga aattaacnaa aatttntnca gcaaaagact      780
cagacttcaa a                                                          791
```

```
<210> 227
<211> 687
<212> DNA
<213> Homo Sapiens

<400> 227
gattgttatc ttttattttc atatgaaaaa tagattttaa gcaaaattca aaaataactc      60
gacactataa aaanagaggg ccttaagtac attcttttg ttaataagat ttaccagttt      120
gtaggttcaa atatgcagtt aaaatcactg tttttttta aacatgttac gaagattaaa      180
aaaaaaagg ctcagccaca tgttggttta aattcccata tgcaactatt cccatatgta      240
ctatgtacaa gtgatttata aaaacattgg cattaatggt acaggcaaag taaactacag      300
tggagtttca naatctcagt tcactgcatc ttgattaaaa aaaccatgtg acattccaat      360
tatgaagtca gtgaggtagt ggaggtgttt tccttgaata tatttacaca agacagtatt      420
cctcatctgg ctgaggcatt cttttccgga ttttgtccaa gttganagtc ctctgtgagg      480
gaagactcca agctgagaca gactgggtga tgacgctgaa tctgcaaagg tgcctggtga      540
ccaattcccc ctaanagcat cctacttgtc tccncaaact gtgntaaagt gccctctgtc      600
ctgccgcttt cctttaatna aaacttctgg cttngcttgg ggcanacagt gtcgganttg      660
gggccttgag tcnggcttcc cggggaa                                         687
```

```
<210> 228
<211> 810
<212> DNA
<213> Homo Sapiens

<400> 228
gtctgggcag cgccaggcga tggccctgct gctggtgctc ctcgcctctt ggggcctggg      60
gcagtgaggg ggccggcggg cgtgggccga gtggccgcgg gcgccatgga ggggtgctg      120
tacaantgga ccaactatct gagcggttgg cagcctcgat ggttccttct ctgtggggga      180
atattgtcct attatgattc tcctgaagat gcctggaaag gttgcaaagg agcatacaa      240
atggcagtct gtgaaattca agttcattct gtagataata cacgcatgga cctgataatc      300
cctggggaac agtatttcta cctgaaggcc agaagtgtgg ctgaaagaca gcggtggctg      360
gtggccctgg gatcagccaa ggcttgcctg actgacagta ggacccagaa ggagaaagag      420
tttgctgaaa acactgaaaa cttgaaaacc aaaatgtcan aactaagact ctactgtgac      480
ctccttgttc ancaagtaga ttaaaacata agaagtgacc acaactggtg tgtccaattc      540
```

```
tgaggtaaag gagtcttcca ctctggttgt ttcgtangag ggaattgatg tgggaacttt        600
gctgaaatca anctgntata cttttctga aagaccttgg taagaattca tgcanatngc        660
aaattgcagc cttnaanctc ctgaagcctn cttctaaccg gcactccaac canggaatna       720
anctnaagct gggccaatgg ctccaaagtt ccaacnaaag gttaaaanat cccagctcaa       780
atttgggcng caaacaaagg gcaatccaac                                        810
```

        <210> 229
        <211> 552
        <212> DNA
        <213> Homo Sapiens

        <400> 229

```
gtaaatttgt ttgagttcat tgtagattct ggatattagc ccttttgtca gatgagtaga         60
ttgcaaaaat tttctcccat tctgtaggtt gcctgttcac tctgatggta gtttcccttg        120
ctgtgcggaa gctctttagt ttaattagat cccatttgtc aatttcggct tttgttgcca        180
ttgcttccgg tgttttagac atgaagtcct tgcccatgcc tatgtcctga atggttttcc        240
taggtttct tctagggttt ttatggtttt aggtctaaca tttaagtctc gaatccatct         300
tgaattaatt tttgtataag gtgtaaggaa gggatccact ttcagctttc tacgtatggc        360
tagccagttt tcccancacc atttattaaa tagggaatcc tttccccant tcctgttttt        420
gtcangtttg tcaaagatca natggctgta natatgcanc attatttccg agggctctgt        480
tcngttccat tggtctacat ttccgtttg gttccngtac catgctgttt tttgttacng         540
gtanaccttg gt                                                           552
```

        <210> 230
        <211> 842
        <212> DNA
        <213> Homo Sapiens

        <400> 230

```
ctcatcagtt agaagaaaaa gaaaatcaaa ttaagagcat gaaggctgat attgaaagtc         60
ttgtaacaga aaaagaagcc ttacagaagg aaggaggcaa tcagcaacag gctgcttctg        120
aaaaggagtc ttgtataaca cagttgaaga aagagttatc tgaaaacatc aatgctgtca        180
cattgatgaa agaagagctt aaagaaaaaa aagttgagat tagcagtctt agtaaacaac        240
taactgattt gaatgttcag cttcaaaata gcatcagcct atccgaaaaa gaagcagcca        300
tttcatcact aagaaagcag tatgatgaag aaaaatgtga attgctggat caggtgcaag        360
atttatcttt taaagttgac actctgagta agagaaaat ttctgctctt gagcaggtag         420
atgactggtc caataaattc tcagaatgga agaagaaagc acagtcaaga tttacacagc        480
atcaaaacac tgttaaagaa ttgcagatcc agcttgagtt aaaatcaaag gaagcttatg        540
aaaaggatga gcagataaat ttattgaagg aagagcttga tcagcaaaat aaaagatttg        600
attgtttaaa gggtgaaatg gaagacgaca agagcaagat gggagaaaaa ggagtctaat        660
ttagaaacag agttaaagtc tcaaacagca agaattatgg gattagagga ccatattanc        720
caagaaaact atttggaaat tagagtcctt aaatngaaag ttccttaaaa aattacaatc        780
aacaaaaagg atattggacc acaaagnaat tgggtcaaaa aaccttcaac aantttcaag        840
ga                                                                      842
```

        <210> 231
        <211> 781
        <212> DNA
        <213> Homo Sapiens

        <400> 231

```
atatagtaaa taaactttat ttatctgttt ctcagagatg acactgccaa caatcacaga         60
tttgcataca atacagttat gtattggcta ttcacaattt acagtagtgt tttttcctct        120
gaaaaatata agtacaaaag ctaagtaaac aatgaggtac tgccatttgg gatttttac         180
atgtcttagc ttaaagaact ggtctttagc aaatattcaa cagatcaacc tgaataaaat        240
```

-158-

```
agtcaattaa atgctctaat ttatcagaaa aaatccacta agtttcacct caaaatgtat      300
tgcacaagtc tttttaaaaa atcaccctaa aaataaatag gaaaggtaag ccgttcttta      360
aaaagaatgg atgaaaggaa tattatgtaa gcccataaag caggttaagt tatcaaaata      420
tcttttaaac aacataaaac tcttcccaag agaaaactga agaaaaaact atcaccattt      480
ctccactgat aaaatctatt ttaaaggcag tctgcaactt atctgtgggc cagatttttc      540
ttgggtcttt tggctacatg aggggccctg aatgacaact tcattctcaa agagtagcaa      600
agtgtggaca agttttccaa gcagcangtc acccaatgtc actcttcctc aagatgaagg      660
atcggagcca tgacacatgt ttaactaagc acagaccgga tgggtttacc cagaagatac      720
cactggcaan ggtgaagtaa acatcaggcc gaggcaacct tcccntttc aaaaantttt       780
c                                                                     781
```

```
        <210> 232
        <211> 767
        <212> DNA
        <213> Homo Sapiens

        <400> 232
gttatatagt aaataaactt tatttatctg tttctcagag atgacactgc caacaatcac       60
agatttgcat acaatacagt tatgtattgg ctattcacaa tttacagtag tgtttttcc       120
tctgaaaaat ataagtacaa aagctaagta aacaatgagg tactgccatt tgggattttt      180
tacatgtctt agcttaaaga actggtcttt agcaaatatt caacagatca acctgaataa      240
aatagtcaat taaatgctct aatttatcag aaaaaatcca ctaagtttca cctcaaaatg       300
tattgcacaa gtcttttaa aaaatcaccc taaaataaa taggaaaggt aagccgttct        360
ttaaaaagaa tggatgaaag gaatattatg taagcccata aagcaggtta agttatcaaa       420
atatctttta aacaacataa aactcttccc aagagaaaac tgaagaaaa actatcacca       480
tttctccact gataaaatct attttanagg cagtctgcaa cttatctgtg gccagattt        540
ttcttggtct tttggctaca tgaggggccc tgaatgaaaa cttcattctc aaaggagtag      600
caagtgtggg acagttttcc aagcagcagt cacccaatgt cactcttctt caagatgaaa       660
gatcggagnc atgacacatg ttaacctaag nacangactg gagggtttac ncangaagat      720
acactgcgaa ggtgaaagtt aaacatcaag ccgaggaacc tcccctt                    767
```

```
        <210> 233
        <211> 879
        <212> DNA
        <213> Homo Sapiens

        <400> 233
gggagtttaa tacacagctg gcacaaaagg aacaagagct ggaaatgacc ataaaagaaa       60
ctatcaataa ggcccaggag gtggaggctg aacttttaga aagccatcaa gaagagacaa      120
atcagttact taaaaaaatt gctgagaaag atgatgatct aaaacgaaca gccaaaagat      180
atgaagaaat ccttgatgct cgtgaagaag aaatgactgc aaaagtaagg gacctgcaga      240
ctcaacttga ggagctgcag aagaaatacc agcaaaagct agagcaggag gagaaccctg      300
gcaatgataa tgtaacaatt atggagctac agacacagct agcacagaag acgactttaa      360
tcagtgattc gaaattgaaa gagcaagagt tcagagaaca gattcacaat ttagaagacc       420
gtttgaagaa atatgaaaag aatgtatatg caacaactgt ggggacacct tacaaaggtg      480
gcaatttgta ccatacggat gtctcactct ttggagaacc taccgaattt gagtatttgc      540
gaaaagtgct ttttgagtat atgatgggtc gtgagactaa gaccatggca aaagttataa       600
ccaccgtact gaagttccct gatgatcaga ctcagaaaat tttgggaaaa gagaagatct      660
cggctgatgt ttacttcacc tcgcagtggt atcctcngag taaaccatca gtcgtgccta      720
agtttacatg tgtcatgggt ccgattcttc atcctttgaa gaaagagtgg acattggggt       780
naccggctgc cttgggaaaa ctgtccanac nttgcnaacn ccttggggaa atggaagntt      840
ttccanttca agggcccct caangnttgc ccaaacagg                              879
```

```
        <210> 234
        <211> 780
```

```
      <212> DNA
      <213> Homo Sapiens


      <400> 234
aaactttatt tatctgtttc tcagagatga cactgccaac aatcacagat ttgcatacaa        60
tacagttatg tattggnnng gcacaattta cagtagtgtt ttttcctctg aaaaatataa       120
gtacaaaagc taagtaaaca atgaggtact gccatttggg attttttaca tgtcttagct       180
taaagaactg gtctttagca aatattcaac agatcaacct gaataaaata gtcaattaaa       240
tgctctaatt tatcagaaaa aatccactaa gtttcacctc aaaatgtatt gcacaagtct       300
ttttaaaaaa tcaccctaaa aataaatagg aaaggtaagc cgttctttaa aaagaatgga       360
tgaaaggaat attatgtaag cccataaagc aggttaagtt atcaaaatat cttttaaaca       420
acataaaact cttcccaaga gaaaactgaa gaaaaaacta tcaccatttc tccactgata       480
aaatctattt taaaggcagt ctgcaactta tctgtgggcc agatttttct tggtcttttg       540
gctacatgag gggccctgaa tgaaaacttc attctcaaag agtagcaagt gtggacaagt       600
tttccaagca gcagtcancc aatgtcactc ttcttcaaga tgaaagatcg gagccatgac       660
acatgttaac taagcacaga cntgatggtt tactncagaa gattaccact gcnaaggtga       720
aagttaaaca tcaagncgag catncntctc tttccaaaaa ttttccggng tccggattca       780


      <210> 235
      <211> 780
      <212> DNA
      <213> Homo Sapiens


      <400> 235
attctgaggg tatattaagt cagagtcagg ataaatcact tcggagaata gcagaattaa        60
gagaggagct ccaaatggac cagcaggcaa agaaacatct gcaagaggag tttgatgcat       120
ctttagagga gaaagatcag tatatcagtg ttctccaaac tcaggtttct ctactgaaac       180
aacgattacg aaatggcccg atgaatgttg atgtactgaa accacttcct cagctggaac       240
cacaggctga agtcttcact aaagaagaga atccagaaag tgatggagag ccagtagtgg       300
aagatggaac ttctgtaaaa acactggaaa cactccagca aagagtgaag cgtcaagaga       360
acctacttaa gcgttgtaag gaaacaattc agtcacataa ggaacaatgt acactattaa       420
ctagtgaaaa agaagctctg caagaacaac tggatgaaag acttcaagaa ctagaaaaga       480
taaaggacct tcatatggcc gagaagacta aacttatcac tcagttgcgt gatgcaaaga       540
acttaattga acagcttgaa caaggataag ggaatggtaa tcgcagagac aaaacgtcag       600
atgcatgaaa ccctggaaat gaaagaagaa gaaattgctc aactccgtag tcgcatcaaa       660
cagatgacta cccaagggag aggaattacg ggaacaagan agaaaagtcc gaaagaactg       720
cntttgaggg aacttgaaaa agccttgagt acagnccaaa aanacagngg aagccaccgg       780


      <210> 236
      <211> 711
      <212> DNA
      <213> Homo Sapiens


      <400> 236
cttggttttt aaatttggtt tcatattcct cattcaaaat atgaatactg tcctccttgg        60
ctgacaattt ctgtgtgagt atctcaattt ctttcttctg tccttctctc atttgtaaaa       120
tcatattttc cttttccacc aagatttgct ttgtctgttc ctgttctttg ttaccatctt       180
caagtttgga ctcatagact tgggttaaag attttacttt ttgctccatt tcactatttt       240
gttttttcaag ttgctgcatt aagtcctgca cctggatttt gtgagcatct aactcagtac       300
aaacatcttt cttttgtgct tcaacttcag caacctgttt ggtaagaaga attctttctg       360
tttccaaatc caacaacttc tgctgcaatt gggccaactg ttcctcatat gcttttgtct       420
gctcatgtgt ggcactctgg taagactgaa aaacgtccag cttagcagat gcctgctgga       480
gttccccttc agacctttta atatctgcct ccaaattttc tacatgagcc tgatgctctt       540
tcaaatgctt gtcccttttcc ttcaagagaa gctcaagttg nttaanttga tcttttaaag       600
ccttctcaan tcctccggga tanaaaacnt cgtgttcttt naatgagaac ggtcaacntg       660
```

```
ccggctgggt gataantttt ccgttcancc anccttgggg ctccaaattc c            711
```

```
        <210> 237
        <211> 658
        <212> DNA
        <213> Homo Sapiens

        <400> 237
atagtaaata aactttattt atctgtttct cagagatgac actgccaaca atcacagatt    60
tgcatacaat acagttatgt attggctatt cacaatttac agtagtgttt tttcctctga   120
aaaatataag tacaaaagct aagtaaacaa tgaggtactg ccatttggga ttttttacat   180
gtcttagctt aaagaactgg tctttagcaa atattcaaca gatcaacctg aataaaatag   240
tcaattaaat gctctaattt atcagaaaaa atccactaag tttcacctca aaatgtattg   300
cacaagtctt tttaaaaaat caccctaaan ataaatagga aaggtaagcc gttctttaaa   360
aagaatggat gaaaggaata ttatgtaagc ccataagagc aggttaagtt atcaaaatat   420
cttttaaaca ncataaaact cttcccanga gaaaactgaa gaaaaaacta tcaccatttc   480
tccactgata aaatctattt taaaggcagt ctgcanctta tctgtgggcc aagatttttc   540
ttggnctttt ggctacatga gggggccctg gaatgaaaaa cttcattccc aanggagttn   600
gcnaggtgtg ggacaggttt tccaaggcaa gcaagtnagc caaatngtca gctcttcc     658
```

```
        <210> 238
        <211> 678
        <212> DNA
        <213> Homo Sapiens

        <400> 238
gttatatagt aaataaactt tatttatctg tttctcagag atgacactgc caacaatcac    60
agatttgcat acaatacagt tatgtattgg ctattcacaa tttacagtag tgttttttcc   120
tctgaaaaat ataagtacaa aagctaagta acaatgagg tactgccatt tgggattttt   180
tacatgtctt agcttaaaga actggtcttt agcaaatatt caacagatca acctgaataa   240
aatagtcaat taaatgctct aatttatcag aaaaaatcca ctaagtttca cctcaaaatg   300
tattgcacaa gtcttttaa aaaatcaccc taaaaataaa taggaaaggt aanccgttct   360
ttaaaaagaa tggatgaaag gaatattatg taagcccata aagcaggtta agttatcaaa   420
atatctttta aacaacataa gaactcttcc caaggagaaa actgaannaa aaaactatca   480
ncatttcnnc actgataaaa tctantttaa agggnagtcn gcaacttanc tgtgggccag   540
attttttccgt ggggctttg ggctacantn agggggccct gaatgaaaaa nttcaattcc   600
ncaaatgnng tagcaaattg tgggncangt ttttccaaag cagncaantt cancccnana   660
tgtcactcct tccttcaa                                                678
```

```
        <210> 239
        <211> 1402
        <212> DNA
        <213> Homo Sapiens

        <400> 239
gggagtttaa tacacagctg gcacaaaagg aacaagagct ggaaatgacc ataaaagaaa    60
ctatcaataa ggcccaggag gtggaggctg aacttttaga aagccatcaa gaagagacaa   120
atcagttact taaaaaaatt gctgagaaag atgatgatct aaaacgaaca gccaaaagat   180
atgaagaaat ccttgatgct cgtgaagaag aaatgactgc aaaagtaagg gacctgcaga   240
ctcaacttga ggagctgcag aagaaatacc agcaaaagct agagcaggag gagaaccctg   300
gcaatgataa tgtaacaatt atggagctac agacacagct agcacagaag acgactttaa   360
tcagtgattc gaaattgaaa gagcaagagt tcagagaaca gattcacaat ttagaagacc   420
gtttgaagaa atatgaaaag aatgtatatg caacaactgt ggggacacct tacaaaggtg   480
gcaatttgta ccatcggat gtctcactct ttggagaacc taccgaattt gagtatttgc   540
gaaaagtgct ttttgagtat atgatggggtc gtgagactaa gaccatggca aaagttataa   600
```

```
ccaccgtact gaagttccct gatgatcaga ctcagaaaat tttggaaaga gaagatgctc    660
ggctgatgtt tacttcacct cgcagtggta tcttctgagt aaaccatcag tctgtgctta    720
gttaacatgt gtcatggctc cgatcttcat cttgaagaag agtgacattg ggtgactgct    780
gcttggaaaa ctgtccacac ttgctactct ttgagaatga agttttcatt cagggcccct    840
catgtagcca aaagaccaag aaaaatctgg cccacagata agttgcagac tgcctttaaa    900
atagatttta tcagtggaga aatggtgata gttttttctt cagttttctc ttgggaagag    960
ttttatgttg tttaaaagat attttgataa cttaacctgc tttatgggct tacataatat   1020
tcctttcatc cattcttttt aaagaacggc ttacctttcc tatttatttt tagggtgatt   1080
ttttaaaaag acttgtgcaa tacatttttga ggtgaaactt agtggatttt ttctgataaa   1140
ttagagcatt taattgacta tttttattcag gttgatctgt tgaatatttg ctaaagacca   1200
gttctttaag ctaagacatg taaaaaatcc caaatggcag tacctcattg tttacttagc   1260
ttttgtactt atatttttca gaggaaaaaa cactactgta aattgtgaat agccaataca   1320
taactgtatt gtatgcaaat ctgtgattgt tggcagtgtc atctctgaga aacagataaa   1380
taaagtttat ttactatata ac                                            1402
```

        <210> 240
        <211> 760
        <212> DNA
        <213> Homo Sapiens

        <400> 240
```
gtgcagtttc tcttatattc ctcacatatg tgctttcatt catctttcgc aagtggagaa     60
aaaataatgg cttttggtct tttggctttt ttattatctt aatatgtgta tccacaatta    120
tggtatcaac tcaatatgaa aaactcaact taattttgtg catgattttc ataccttcct    180
tcactttgct ggggtatgtc atgttattga tccagctcga ctttatgaga aacttggaca    240
gtctggacaa tagaataaat gaagtcaata aaaccattct tttaacaacc ttaataccat    300
accttcagag tgttatttttc cttttttgtca taaggtgtct ggaaatgaag tatggaaatg    360
aaataatgaa taaagaccca gttttcagaa tctctccacg gagtagagaa actcatccca    420
atccggaaga gcccgaagaa gaagatgaag atgttcaagc tgaaagagtc caagcagcaa    480
atgcactcac tgctccaaac ttggaggagg aaccagtcat aactgcaagc tgtttacaca    540
aggaatatta tgagacaaag aaaagttgct tttcaacaag aaagaagaaa atagccatca    600
gaaatgtttc cnttttgtgtt aaaaaaggtg aaagtttttgg ggattaccta ggacacaatg    660
ggagctggta aaagtacttc cattaaaatg ataacntggg tgcacaaagc caaactgcan    720
ggagtggtgg gtgttacaaa ggnagcagan gcatcnggta                          760
```

        <210> 241
        <211> 745
        <212> DNA
        <213> Homo Sapiens

        <400> 241
```
aaaagtccan caaagtttta tttctaagaa ataaacttgc atataacccg aacgtaacaa     60
cncnggtatt acatcaatac agctataaca ttaatgcagc aattatataa cacaaaagtg    120
ctataatgac atgggaaatg ttcatgaact gtgaggtgaa aagatacaga aaatgactat    180
gcctacngat actacctttg aaaaaggatc cataaaaaat acattgaata taagttggct    240
aaagaaaata ttaactgcgg tactttctta cagattangg ctancttctt ccatataact    300
tcaatatgta ctaaaattca catgcattta ttttataatc agaatgtcat tataattaaa    360
tgttangctg tgccatttca tcagtttatc anaccttctt atagtcaatg tcacattaaa    420
ttagaatccg agtaaataan gtttaaaaat anctgataca tttgaagttc aggctaaaaa    480
cctcatattt ttatttgtaa aatgttctca ntgttagctt tattgataat aaccgataac    540
caacctaata ttgtangatt tttaaattat ttttaagcac aaantagacc catgttgggg    600
atgaataaca tgtcngattt tgtnaatttt ggtcnacnac tttttcccaaa aatttccttg    660
tttccttcan ccnaaatttt taaaantgaa aactgtatca attatggaan ggtttattaa    720
aangtttncc tttggtaacc ngaag                                          745
```

<210> 242
<211> 818
<212> DNA
<213> Homo Sapiens

<400> 242

```
gcaacgccgg ggcgcccgag gtctggaagg cgcagaaatg gagcaagagc cacaaaatgg       60
agaacctgct gaaattaaga tcatcagaga agcatataag aaggcctttt tatttgttaa      120
caaaggtctg aatacagatg aattaggtca gaaggaagaa gcaaagaact actataagca      180
aggaatagga cacctgctca gagggatcag cattcatca aaagagtctg aacacacagg      240
tcctgggtgg gaatctgcta gacagatgca acagaaaatg aaagaaactc tacagaatgt      300
acgcaccagg ctggaaattc tagagaaggg tcttgccact tctctgcaga atgatcttca      360
ggaggtgccc aagttatatc cagaatttcc acctaaagac atgtgtgaaa aattaccaga      420
gcctcagtct tttagttcag ctcctcagca tgctgaagta aatggaaaca cctcaactcc      480
aagtgcaggg gcagttgctg cacctgcttc tctgtcttta ccatcacaaa gttgtccagc      540
agaagctcct cctgcttata ctcctcaagc tgctgaaggt cactacactg tatcctatgg      600
aacagattct ggggagtttt catcagttgg agaggagttt tatagggaat cattctcagc      660
caacggcctc ttnagaacct taagggctgg gattcangat gaaattgatt ttgataccaa      720
atgggagtac annttttttt tgtaaatcct gcaangggga ngttatgcan cttcgtancc      780
ccggggtacc ttcnaattgt gaagggtttt gggntaaa                              818
```

<210> 243
<211> 799
<212> DNA
<213> Homo Sapiens

<400> 243

```
aatttcttga agtacttttt taatccaatt aagctgataa taatcacttc gaattttaat       60
acaatacaat catgttccca aatttccnag gctcataaca atacagtctc aatacaaaag      120
acgtaataat ctattttat tcattttaaa tcaaagaaac cattccattt cctaacaaac      180
aggtaagtta caaaagtagt ccattttact tttcatcagt ctttccctgt tttgaacaag      240
tcttttttgag aattcttagt tttagttttt gtttagctta cacactgaaa attttgagaa      300
gcatctaaaa aaatccacaa ttagtgcaaa aagaggggac aatactttaa gtcattcctt      360
ctataaaaag aattaaggtt actaaatgcc aattttaag caaatatata gtttcctatt      420
tgccttctga aagacagcag atataaaaat agttcaatat taggtttaac aaggtttgaa      480
caacacatgt actatcagct ttattttacc tgcaaaaata ttttagctac acttggaaaa      540
aaaataaact tgagaatata acttcacatt tctaaggcca gatgcaagaa tacttaatct      600
tttccttta aatagaagac atgccataaa atttatgaaa agttaatttg taggaatggn      660
atacatttaa aaaatacngg ttaaaccngg tgagggaatt ccacatttgg cctatttaac      720
aaaaatttta aaccaatttt caaaaggggc tttgggggtaa aaagtngatt cccaagcaac      780
ntcaancant ttaaccttc                                                   799
```

<210> 244
<211> 726
<212> DNA
<213> Homo Sapiens

<400> 244

```
gtgagttgag cgctgctgct ccgcggtgga gtcaccgcac cgctcccggg atcatggtgt       60
tctacttcac cagcagcagc gttaattcat ctgcctacac tatttacatg ggaaaagata      120
aatatgaaaa tgaagatctg atcaagcatg gctggcctga agatatctgg tttcatgtgg      180
acaaactctc ttcggctcat gtataccttc gattacataa gggagagaat atagaagaca      240
tcccaaagga agtgctgatg gactgtgccc accttgtgaa ggccaatagc attcaaggct      300
gcaagatgaa caacgttaat gtggtatata cgccgtggtc taacctgaag aaaacagctg      360
acatggatgt ggggcagata ggctttcaca ggcagaagga tgtaaaaatt gtgacagtgg      420
```

```
agaagaaagt aaatgagatc ctgaaccgat tagaaaagac caaagtcgag cggttcccag      480
acctancagc agagaaagaa tgcagagatc gtgaagagag gaatgagaaa aaagcccaaa      540
ttcaggaaat gaaaaagaga gaaanagaag aaatgaagaa gaanagggaa atggatgaac      600
ttangagcta ttcatcacta atgaaagttt gaaaatatgt cttcanatca ggatggcaat      660
ggattcagat gaattcatgt aaaaggaga aaaggngaaa aaggacctttt gaaaaatttg      720
aatgtt                                                                 726
```

        <210> 245
        <211> 592
        <212> DNA
        <213> Homo Sapiens

        <400> 245

```
ccagattaaa aaaatggtat tttattataa ctttttaaaat tgcggaacat cagactgaat      60
atcatcagac acatacacaa aaccactcat ctctaaagtc attttctata ccctctcaaa     120
atttggccag tgagttttgc ctcagggaat tttccagttc aaccccatac accaacatgg     180
aataaatgga aacactagcc ttttggtttt gcccanagtt ccaaagtgct attacaggtg     240
gaatatctgc tgcaggaagt cattcttgct gctgtgggtg tgagtaaaat gcttagttcc     300
ttctaaaatc ataattgcaa tatggacttc tgcttcacgc tgcatcctaa ggcacaaatc     360
aggtaaccta catctcccaa atgatcaaca ggagcactcc atcctatttt accctcaatg     420
cnganaaatt acncctgggc ccanaagttg tcacataggt ggcttgggtt acttgggggct     480
caggcaacaa ctgccacagg ccccagcttg atgaanacca tcnatttctt taaaatatgt     540
tggnnactaa gatggaggcc tccggcncan agggaancan nggacataaa ac             592
```

        <210> 246
        <211> 821
        <212> DNA
        <213> Homo Sapiens

        <400> 246

```
aggatgaaga gctggagagc gccgaggacg acgagcgcag ctgtcggggc cgcgagtcgg      60
acgaagacac tgaggatgct agtgaaactg acctggcaaa gcatgatgaa gaagactatg     120
tagaaatgaa ggaacagatg tatcaggaca aactggcttc tctcaagagg cagttgcaac     180
aactgcaaga aggtacatta caggaatatc agaagagaat gaaaaaacta gatcagcagt     240
acaaagagag gatacggaat gcagaactct cctccagct ggaaactgaa caagtggaac     300
gaaattacat taaagaaaag aaggcagcag tgaaagaatt tgaagacaag aaggttgagc     360
tgaaagagaa cctgattgct gagctagaag aaaagaagaa aatgattgaa aatgaaaagc     420
tgacaatgga actgactgga gattctatgg aggtgaaacc tatcatgacc agaaagttgc     480
ggaggcgacc aaatgatccc gtccccatcc cagacaagag gaggaaacct gctccagccc     540
agctaaacta tttgttaaca ggatgaacag atcatggagg atctgagaac attaaataag     600
cttaagtcac ccaagagacc agcatctcca tcctctcctg agcacttgcc tgcaacaccc     660
gccggaatct ccaagcccca gaggttcnaa agccccggat anaagaatgg caaacctgtt     720
actatgacaa aaagatggtt accacaagag ccaaggccat cctatcctgg angtcaaagg     780
gacaaaccan gaaactgaag cctgcctnat taagtttccg t                        821
```

        <210> 247
        <211> 639
        <212> DNA
        <213> Homo Sapiens

        <400> 247

```
gttacacaaa gcatttattt ctctgagaag gccgagagcc acgagaattc atcatctcct      60
gctaggacct ctgccccaag cttctgggca aatagtgaat tggacgcgac agggaaagta     120
gctacgtgat ccactaatca gattcaaaac atgaaaatgc actggagagt gtatcccttc     180
ctgctcttct ccatggtaga gagacttaaa gataatcaat aaaaatagct gtcccttcaa     240
```

-164-

```
actcagagga ggttttcaaa aacaagtata agcaaaaaat aaagaaataa aaggaaagta    300
aatcaaaccc cccaatacgc ctgaaagtaa aacagtctca tggtgactga tgtctggaan    360
aagttgaggc agaaaagact gacaaagttg gaangcatcc cggccacaaa agtgcccnaa    420
aagaattcan tgcagtgctc tccatttcca aggctgagta actattccca gntaagttaa    480
cattttttcna nttaaggana nancgaaanac anntncatnt ctanatccca ctccagaaat    540
anggtcaatg agaangangc actgtannna aagtcaagna gctggancnc ccgggcggnt    600
tnacccaaga gcccggcgct nnaagcctgg gcccaagct                          639
```

        <210> 248
        <211> 846
        <212> DNA
        <213> Homo Sapiens

        <400> 248

```
aacaggatgt caaaaattaa actgcgcttt ccatcacaat agaggacgat atgttgatgg     60
ccttttccta cctccgagca aaactgtgtt gcccactgtg cctgagtcac cagaagagga    120
agtgaaggct agccaacttt cagttcagca gaacaaattg tctgtccagt ccaatccttc    180
ccctcagctg cggagcgtta tgaaagtaga aagttccgaa aatgttccta gccccacgca    240
tccaccagtt gtaattaatg ctgcagatga tgatgaagat gatgatgatc agttttctga    300
ggaaggtgat gaaaccaaaa cacctaccct gcaaccaact cctgaagttc acaatggatt    360
acgagtgact tctgtccgga aacctgcagt caatataaag caaggtgaat gtttgaattt    420
tggaataaaa actcttgagg aaattaagtc aaagaaaatg aaggaaaaat ctaagaagca    480
aggtgagggt tcttcaggag tttccagtct tttactccac cctgagcccg ttccaggtcc    540
tgaaaaagaa aatgtcagga ctgtggtgag gacagtaact ctctccacca aacaaggaga    600
agaacccttg gttagattga gtcttactga gagactgggg aaacgaaaat tttcagcagg    660
cggtgacagt gatcctccat aaaagcgtag cctggcacan aggctaaggg aagaaagttg    720
aagctccaga aactaacant gacaaaacac caangaaagc tcaagtttcc aagtcccct    780
aaaggggcga attaggcatg tcagccngga ttcaagataa tnagggatgc aacaagatta    840
aaggtt                                                              846
```

        <210> 249
        <211> 763
        <212> DNA
        <213> Homo Sapiens

        <400> 249

```
gactttccta catcagtttt atttaaaaca caaacaagta tttctctttc tgtaagggca     60
aatggttcaa ataatgcgga acacgaaaca ttgactaata caagtgcttt aaatatgaaa    120
caaaattatt ttttaaaaaa gcaaaagaat aaagaatata tacaaaaggg acctggaatc    180
tgtaagctga ttccaaaaat gaaataagta gaaaatccat ggtgaaacct gaacattcta    240
cctctgcttt ggagaagggc tatcatacaa cattcagtca gctgaagatg gattggtaga    300
ggtgtgtcta tacatataact tcagtcattt ttgcttgtgc agaatcatcc caatcttccc    360
aagactgaat gggcagtcct gtggctttct tccttttcca tattcccaac aaggctacgt    420
gaagttcaac tcttgatgag ccgcttacaa cagcagttcc ttaggagcca acatgacagg    480
tgggtcagat ttccctatga gaaacaaaac tggccaccta cagcaaaata tcaaaatggg    540
taagtccttc cttcctcttc ctcctgatta tatacaacat atctcctttc aagactatta    600
tttccatcat gccttattcc ttcacaaatc taaaccttga ngtgatatga angaaaccaa    660
catcaagaaa agaaaactca attcagaaat gaanaaaacg ggcaggtata caatacaccc    720
cagagcatct caatatcccc tgggacagnt acaattcagt gtt                     763
```

        <210> 250
        <211> 899
        <212> DNA
        <213> Homo Sapiens

```
    <400> 250
attcaagtca agagatgtga gaccatgaga gagaagcaca tgcagaaaca gcaggagagg      60
gaaaaatcag tcttgacacc tcttcgggga gatgtagcct cttgcaatac ccaagtggca     120
gagaaaccag tgctcactgc tgtgccagga atcacacggc acctgaccaa gcggcttccc     180
acaaagtcat cccagaaggt ggaggtagaa acctcaggga ttggagactc attattgaat     240
gtgaaatgtg cagcacagac cttggaaaaa aggggtaaag ctaaacccaa agtgaacgtg     300
aagccatctg tggttaaagt tgtgtcatcc cccaaattgg ccccaaaacg taaggcagtg     360
gagatgcacg ctgctgtcat tgccgctgtg aagccactca gctccagcag tgtcctacag     420
gaacccccag ccaaaaaggc agctgtggct gttgtcccgc ttgtctctga ggacaaatca     480
gtcactgtgc ctgaagcaga aaatcctaga gacagtcttg tgctgcctcc aacccagtcc     540
tcttcagatt cctcacccccc ggaggtgtct ggcccttcct catcccaaat gagcatgaaa     600
actcgccgac tcagctctgc ctcaacaagg aaagcccccca ctctctgtgg aggatgattt     660
tgagaaacta atatgggaga tttcaaggag gcaaaattgg naactganat tgacctggat     720
tctgggaaaa gatgaagatg acccttccgg cttgngcct atcaannaaa ngattgntan     780
cctgaaaggg tggtaattga nggacncctt naaaaaaaaa atccnccaaa aaaactnggg     840
ccttaanttc naccaaatgg taacaatttn acctgagaat gnttaatttc ctttaggcc      899
```

```
    <210> 251
    <211> 755
    <212> DNA
    <213> Homo Sapiens

    <400> 251
cctacatcag ttttatttaa aacactaaca agtatttctc tttctgtaag ggcaaatggt      60
tcaaataatg cggaacacga aacattgana nagacaagtg ctttaaatat gaaacaaaat     120
tatttttttaa aaaagcaaaa gaataaagaa tatatacaaa agggacctgg aatctgtaag     180
gtgattccaa aaacgaaata agtagaaaat ccatggtgaa acctgaacat tctacctctg     240
ctttggagaa gggctatcat acaacattca gtcagctgaa gatggattgg tagaggtgtg     300
tctatacata aacttcagtc atttttgctt gtgcagaatc atcccaatct tcccaagact     360
gaatgggcag tcctgtggct ttcttccttt tccatattcc caacaaggct acgtgaagtt     420
caactcttga tgagccgctt acaacagcag ttccttagga gccaacatga caggtgggtc     480
agatttccct atgagaaaca aaactggcca cctacagcaa aatatcaaaa tgggtaagtc     540
cttccttcct cttcctcctg attatataca acatatctcc tttcaaagac tattatttcc     600
atcatgctta ntccttcaca aatctaaacc ttgaggtgat atgaaggaaa ccaacatcan     660
gaaaagaaaa ctcaattcag aaatgaagaa aacgggcang tatacaattc anccccagag     720
caacccaata atccctgggc aaaagttcaa ttcaa                                 755
```

```
    <210> 252
    <211> 753
    <212> DNA
    <213> Homo Sapiens

    <400> 252
cctacatcag ttttatttaa aacactaaca agtatttctc tttctgtaag ggcaaatggt      60
tcaaataatg cggaacacga aacattgact aatacaagtg ctttaaatat gaaacaaaat     120
tatttttttaa aaaagcaaaa gaataaagaa tatatacaaa agggacctgg aatctgtaag     180
gtgattccaa aaacgaaata agtagaaaat ccatggtgaa acctgaacat tctacctctg     240
ctttggagaa gggctatcat acaacattca gtcagctgaa gatggattgg tagaggtgtg     300
tctatacata aacttcagtc atttttgctt gtgcagaatc atcccaatct tcccaagact     360
gaatgggcag tcctgtggct ttcttccttt tccatattcc caacaaggct acgtgaagtt     420
caactcttga tgagccgctt acaacagcag ttccttagga gccaacatga caggtgggtc     480
agatttccct atgagaaaca aaactggcca cctacagcaa aatatcaaaa tgggtaagtc     540
cttccttcct cttcctcctg gattatatac aacatatctc ctttcaagac tattatttcc     600
atcatgcnta atccttcaca aatctaaaac cttgagggtg atatgaaagg aaaccaacat     660
canagaaaag aaaactcaat tcaagaaaat taagaaaacc tggcaaggta tacaaataca     720
```

```
cccccaggag catcccaaat aatccctggg aaa                          753

        <210> 253
        <211> 793
        <212> DNA
        <213> Homo Sapiens

        <400> 253
gactttccta catcagtttt atttaaaaca ctaacaagta tttcnctttc ngtaagggca   60
aatggttcaa ataatgcgga acacgaaaca ttgactaata caagtgcttt aaatatgaaa  120
caaaattatt ttttaaaaaa gcaaaagaat aaagaatata tacaaaaggg acctggaatc  180
tgtaaggnga ttccaaaaac gaaataagta gaaaatccat ggtgaaacct gaanattcta  240
cctctgcttt gganaagggc tatcatacaa cattcagtca gctgaanatg gattggtaaa  300
ggtgtgtcta tacataaact tcagtcattt ttgcttgtgc anaatcatcc caatcttccc  360
aagactgaat gggcagtcct gtggctttct tccttttcca nattcccaac aaggctacgt  420
gaagttcaac tcttgatgag ccgcttacaa cagcagttcc ttaggagcca acatgacagg  480
tgggtcagat ttccctatga gaaacaaaac tggccaccta cagcaaaata tcaaaatggg  540
taagtccttc cttcctcttc cncctgatta tatacaanat atctcctttc aagactatta  600
tttccatcat gcttattcct tcacanatct aaaccttgan gtgatatgaa nggnaaccaa  660
catcangaaa agaaaactca attcagnaat gaangaaaac tgggaggtat ttaatanacc  720
cccangnnga atccaaatac cctggnaana gttcaattca antgtacngc naaagnccat  780
aantaantat tgg                                                793

        <210> 254
        <211> 625
        <212> DNA
        <213> Homo Sapiens

        <400> 254
cctacatcag ttttatttaa aacactaaca agtatttctc tttctgtaag ggcaaatggt   60
tcaaataatg cggaacacga aacattgact aatacaagtg ctttaaatat gaaacaaaat  120
tatttttttaa aaaagcaaaa gaataaagaa tatatacaaa agggacctgg aatctgtaag  180
gtgattccaa aaacgaaata agtagaaaat ccatggtgaa acctgaacat tctacctctg  240
ctttggagaa gggctatcat acaacattca gtcagctgaa gatggattgg tanaggtgtg  300
tctatacata aacttcagtc atttttgctt gtgcagaatc atcccaatct tcccaagact  360
gaatgggcag tcctgtggct ttcttccttt tccatattcc caacaaggct acgtgaagtt  420
caactcttga tgagccgctt acaacancaa gttccttang agccaacatg acaggtgggg  480
tcangatttc cctatgagaa acaanactgg ccacctacag caaaaatatn aaaatggggt  540
aagtccttcc ttcctcttcc tcctgaatta tatncaacat ntctcctttt caagacnatt  600
anttccatca gggcttaatc cttca                                    625

        <210> 255
        <211> 907
        <212> DNA
        <213> Homo Sapiens

        <400> 255
gccaacagca gcggagaaac gtttctcttt cctctcagtt tgcgcacacc atggcggccc   60
ctgcccagca gactactcag cctggcggcg ggaagcgcaa aggcaaggct cagtatgtgc  120
tggccaagcg cgctcggcgc tgcgacgctg gcgggccccg tcagctagag cccgggctac  180
agggcatcct catcacctgc aatatgaacg agcgcaagtg cgtggaggag gcctacagcc  240
tcctcaacga atacggcgac gacatgtatg gccagaaaa gtttacagac aaggatcagc  300
agccctctgg aagtgaggga gaggatgatg atgcggaggc tgccttgaag aaagaagttg  360
gtgacattaa ggcatctaca gagatgaggt taagaagatt ccagtcagtg gaaagtggag  420
caaataacgt tgtcttcatc aggacacttg ggatagagcc tgagaaattg gtgcatcata  480
```

```
ttctccagga tatgtacaaa accaagaaaa agaagactcg agttattttg cgaatgttac      540
ccatctcagg cacatgcaag gctttttttag aagatatgaa aaaatatgca gaaacatttt      600
tggaaccctg gtttaaagct ccaaacaaag ggacatttca gattgtgtac aaaatctcga      660
nataacagtc atgtnaatag agaagaagtt atcaagagaa tttgcangga atagtgtgca      720
acctcaattc agnaaataaa gtgggtntca acaatccaca agtacacaat ngtaatanaa      780
atcatcaaan ctgtcngttc cctganngtt tgttaaagga ttacaaggtt ggtttannaa      840
aattcaatcn ccaagaaggt tggtnaanaa ncccctaang ggntccttca naggcnttaa      900
ctcaaag                                                                907
```

```
        <210> 256
        <211> 794
        <212> DNA
        <213> Homo Sapiens

        <400> 256
aataacgcaa aatgacttat ggagacaacc actgatgggg caccaggagt gtagatacca       60
gacctctggt tatcagatat gatgtcacaa aanagagata ttggcctttg ttctggcagg      120
ctcctagcaa tagaaaaagt tttctttgaa tttcatcatt tacaaatctt acaaatgcta      180
cagcatgaca aatattagtg aaacctgttg actcatcatc ctggatagag aagctgctac      240
ttttcagtta atgacacaaa acctttttg catcatatga catatcatca gtaaatcaac      300
ttattgagaa taaagtctct tcaactttgt actgcatctt gccccagcat tttaatgtta      360
ttagattctc accaccatg catattttcc tttcctgaga taagttctgc tactaaataa      420
tttgcttctt aaaccttttg actaaaggtg atttctgaac aaaagcctta ctgtttttga      480
tagtccaaaa gccatttgaa aataatgaat atcctttctt gtcaagtggc tgtgatttat      540
tgttacaatt gctaagtttt gtaagttgca tgtcacagac aatgcacaat gggacaagan      600
aaccttggac ctgagtccac ataaataccc cttgagaagt tanctttttcc ttaattaaga      660
caagaatttc ctttggtgtc cccttggttg cactaagtat acttgaaagt ntnctccagn      720
angactggaa gttcttcaat caaccaanct ttttcaagaa aatgtccngt agtttcaang      780
gcctaaaaat gggt                                                        794
```

```
        <210> 257
        <211> 885
        <212> DNA
        <213> Homo Sapiens

        <400> 257
gacgccaaca gcagcggaga aacgtttctc tttcctctca gtttgcgcac accatggcgg       60
cccctgccca gcagactact cagcctggcg gcgggaagcg caaaggcaag gctcagtatg      120
tgctggccaa gcgcgctcgg cgctgcgacg ctggcgggcc ccgtcagcta gagcccgggc      180
tacagggcat cctcatcacc tgcaatatga acgagcgcaa gtgcgtggag gaggcctaca      240
gcctcctcaa cgaatacggc gacgacatgt atgggccaga aaagtttaca gacaaggatc      300
agcagccctc tggaagtgag ggagaggatg atgatgcgga ggctgccttg aagaaagaag      360
ttggtgacat taaggcatct acagagatga ggttaagaag attccagtca gtggaaagtg      420
gagcaaataa cgttgtcttc atcaggacac ttgggtataga gcctgagaaa ttggtgcatc      480
atattctcca ggatatgtac aaaaccaaga aaagaagac tcgagttatt ttgcgaatgt      540
tacccatctc aggcacatgc aaggcttttt tagaagatat gaaaaaatat gcagaaacat      600
ttttggaacc ctgggtttaa agctccaaac aaagggacat ttcagattgt gtacaaatct      660
cgaaataaca gtcatgtgaa tngagaaaga agttatcaga gaaattggca aggaatagtt      720
gtgcaccctc aattcagaaa attaaaggtg ggntctcaac caatccacag ttcacagntg      780
gtagttagaa atcaatcaaa acctgtcngt ttgcccgaan ttgnttgtta aaagaattca      840
angttggttt tanaaanaat naaatccca aagaaggtgg gtgaa                       885
```

```
        <210> 258
        <211> 798
        <212> DNA
```

<213> Homo Sapiens

<400> 258

```
aacatttttg cataaatggg tctttgatac aggtaaccag ttttgtaaca ttattcagaa        60
cttcactgta tcttcaagtt tttgatatca gnagcactgt ggagaaagca gtgtgctata       120
atgtcaacat caggatttct ttttttttttt ttaataacgc aaaatgactt atggagacaa      180
ccactgatgg ggcaccagga gtgtagatac cagacctctg gttatcagat atgatgtcac       240
aacattatat attggccttt gttctggcag gctcctagca atagaaaaag ttttctttga       300
atttcatcat ttacaaatct tacaaatgct acagcatgac aaatattagt gaaacctgtt       360
gactcatcat cctggataga gaagctgcta cttttcagtt aatgacacaa aacctttttt      420
gcatcatatg acatatcatc aagtaaatca acttattgag aataaagtct cttcaacttt      480
gtactgcatc ttgccccagc attttaatgt tattaagatt ctcaccaacc atgcatattt      540
tcctttcctg agataagttc tgctactaaa taatttgctt cttaaacctt ttgactaaag       600
gtgatttctg aacaaaagcc ttactgtttt tgataagtcc caaaaagcca tttgaaaaat       660
aatgaatatc ctttcntgtc aagtggctgt gaatttaatg ttacaattgc caagttttgt       720
aagttgcatn gtcacangac aatgcacaat ggggacaagg agaaccttgg gcctgagtcc        780
acaataanta ccccttga                                                     798
```

<210> 259
<211> 831
<212> DNA
<213> Homo Sapiens

<400> 259

```
gccggcggta gacgaggacg ccaacagcag cggagaaacg tttctctttc ctctcagttt        60
gcgcacacca tggcggcccc tgcccagcag actactcagc ctggcggcgg gaagcgcaaa       120
ggcaaggctc agtatgtgct ggccaagcgc gctcggcgct gcgacgctgg cgggccccgt        180
cagctagagc ccgggctaca gggcatcctc atcacctgca atatgaacga gcgcaagtgc        240
gtggaggagg cctacagcct cctcaacgaa tacggcgacg acatgtatgg gccagaaaag       300
tttacagaca aggatcagca gccctctgga agtgagggag aggatgatga tgcggaggct        360
gccttgaaga aagaagttgg tgacattaag gcatctacag agatggaggtt aagaagattc      420
cagtcagtgg aaagtggagc aaataacgtt gtcttcatca ggacacttgg gatanagcct       480
gagaaattgg tgcatcatat tctccaggat atgtacaaaa ccaagaaaaa gaagactcga        540
gttattttgc gaatgttacc catctcaggc acatgcaang cttttttaga agatatgaaa       600
aaatatgcan aaacatttt ggaancctgg tttaaagctc caaacaaagg gacatttcag        660
attgtgttca aatctcgaaa ataacagtca tgttgaatag aagaagaagt tatcagagaa        720
nttggcaagg aataatgntg caacctcaat tcagaaaata aaagtggatt tcaccaattc       780
cacagtncac aantggtagt agaaatcatc aaaagctntc tgtttgcccg a                831
```

<210> 260
<211> 772
<212> DNA
<213> Homo Sapiens

<400> 260

```
aataacgcaa aatgacttat ggagacaacc actgatgggg caccaggagt gtagatacca        60
gacctctggt tatcagatat gatgtcacaa cattatatat tggccttttgt tctggcaggc      120
tcctagcaat agaaaaagtt ttctttgaat ttcatcattt acaaatctta caaatgctac        180
agcatgacaa atattagtga aacctgttga ctcatcatcc tggatagaga agctgctact        240
tttcagttaa tgacacaaaa cctttttttgc atcatatgac atatcatcag taaatcaact        300
tattgagaat aaagtctctt caactttgta ctgcatcttg ccccagcatt ttaatgttat        360
tagattctca ccaaccatgc atattttcct ttcctgagat aagttctgct actaaataat        420
ttgcttctta aaccttttga ctaaaggtga tttctgaaca aaagccttac tgtttttgat        480
agtccaaaag ccatttgaaa ataatgaata tcctttcttg tcaagtggcn gtgatttatt        540
gttacaattg ctagtttttgt nagttgcatg tcacagacaa tgcacaatgg gacangagag        600
```

```
cctgggactg agtccacata atacccntga gaagtannct ttctttatta agacagaant    660
tctttgtgtc ccttgttgca caagtntact gaagtntcnc aagaaggact ggangtcntc    720
ataancaacc ttttagaaat gtccgtattc ctaaggccca aaaanggqtc cc            772
```

        <210> 261
        <211> 753
        <212> DNA
        <213> Homo Sapiens

        <400> 261

```
agacgaggac gccaacagca gcggagaaac gtttctcttt cctctcagtt tgcgcacacc     60
atggcggccc ctgcccagca gactactcag cctggcggcg ggaagcgcaa aggcaaggct    120
cagtatgtgc tggccaagcg cgctcggcgc tgcgacgctg gcgggccccg tcagctagag    180
cccgggctac agggcatcct catcacctgc aatatgaacg agcgcaagtg cgtggaggag    240
gcctacagcc tcctcaacga atacggcgac gacatgtatg gccagaaaa gtttacagac     300
aaggatcagc agccctctgg aagtgaggga gaggatgatg atgcggaggc tgccttgaag    360
aaagaagttg gtgacattaa ggcatctaca gagatgaggt taagaagatt ccagtcagtg    420
gaaagtggag caaataacgt tgtcttcatc aggacacttg ggatagagcc tgagaaattg    480
gtgcatcata ttctccagga tatgtacaaa accaagaaaa agaagactcg agttattttg    540
cgaatgttac ccatctcagg cacatgcaag gctttttttag aaagatatga anaaatatgc    600
anaaaacatt tttggaaccc tgggtttaaa gctccaaaca aagggacatt tcagaattgt    660
ggtacaaatc tcgaaatanc agtcatgtta antagagaan naagtttttc agaagaattt    720
ggcaaggaat nagtnntgca accctcaatt tca                                 753
```

        <210> 262
        <211> 659
        <212> DNA
        <213> Homo Sapiens

        <400> 262

```
aataacgcaa aatgacttat ggagacaacc actgatgggg caccaggagt gtagatacca     60
gacctctggt tatcagatat gatgtcacaa cattatatat tggcctttgt tctggcaggc    120
tcctagcaat agaaaaagtt ttctttgaat ttcatcattt acaaatctta caaatgctac    180
agcatgacaa atattagtga aacctgttga ctcatcatcc tggatagaga agctgctact    240
tttcagttaa tgacacaaaa ccttttttgc atcatatgac atatcatcag taaatcaact    300
tattgagaat aaagtctctt caactttgta ctgcatcttg ccccagcatt ttaatgttat    360
tagattctca ccangccatg catattttcc tttcctgaga taagttctgc tactaaagaa    420
tttgcttctt aaacctttg actaaaggtg atttctgaac aaaagcctta ctgttttttga    480
nnagtccana agccatttga aaaataatga atatcctttc cttgtcaagt ggcngtgatt    540
tantgttaca atttgcnagg ttttgtaagt tgcatggtca cagnanaatg cacantnggg    600
acanngagan cntgggncng aagtccacat tatanccctt tgagnaangt agctttccc     659
```

        <210> 263
        <211> 673
        <212> DNA
        <213> Homo Sapiens

        <400> 263

```
gagattttga tcacggtaac cgatcagaat gacaacaagc ccgaattcac ccaggaggtc     60
tttaaggggt ctgtcatgga aggtgctctt ccaggaacct ctgtgatgga ggtcacagcc    120
acagacgcgg acgatgatgt gaacacctac aatgccgcca tcgcttacac catcctcagc    180
caagatcctg agctccctga caaaaatatg ttcaccatta acaggaacac aggagtcatc    240
agtgtggtca ccactgggct ggaccgagag agtttccta cgtatacct ggtggttcaa     300
gctgctgacc ttcaaggtga ggggttaagc acaacagcaa cagctgtgat cacagtcact    360
gacaccaacg ataatcctcc gatcttcaat cccaccacgt acaagggtca ggtgcctgaa    420
```

```
aacgaggcta acgtcgtaat caccacactg aaagtgactg atgctgatgc ccccaatacc    480
ccagcgttgg gaggctgtat acaccatatt gaatgatgat ggtgggacaa tttgtcgtca    540
ccacaaatcc agtgaacaac gatggcattt tgaaaaacag caaagttgaa gtcaagtgat    600
tttgctggtt cngaatcaat tgttgcctcn gttgggagaa aggtntccaa cacataccccc   660
gggattngtt att                                                       673
```

        <210> 264
        <211> 661
        <212> DNA
        <213> Homo Sapiens

        <400> 264
```
ccatccaaga taactttatt ccattttgca ttatttgata actatttcct tccctccccc    60
acctccaact gcatctccta ctctgaaatn cctcttgagc agccaagggt ggccagttct    120
gctcctcatt ttcctgaaga anaatctcag cctgaaagaa tatagagcta ggtgacatat    180
gggtggccaa ccgcttctcc tcaagttcca anagagtggg caattagtga aattccatca    240
gtcatgttaa aatatacttt caccaggtan acatccttct ttcaatgcta gaggacagtg    300
aaaaatgtag attaatgaga tctgtaactg tcttctctta actgtacacc cctcaggctg    360
aacgcgggag tgctgaacac atgccctcgg aagggaccct gaagacccaa gtgacctgca    420
ccataaaacc accccgaggg tcagccatgc tgccagcact caagaagcag cagggccacc    480
tgctggaaaa ctgggcacgg ctctgggtgc ctggccctgc ctgcctcctc cacgtccttg    540
gagccaggtc tacggcaggg aacatgatct tcttctccag cttctgtgga aggaacanga    600
aatttttcat gatgtcntcc agctcttcta nggccaactg ggcatgganc ttggccacgt    660
c                                                                    661
```

        <210> 265
        <211> 659
        <212> DNA
        <213> Homo Sapiens

        <400> 265
```
ccatccaana taactttatt ccattttgca ttatttgata actatttcct tccctccccc    60
acctccaact gcatctccta ctctgaaatg cctcttgagc agccaagggt ggccagttct    120
gctcctcatt ttcctgaana anaatctcag cctgaaagaa tatanagcta ggtgacatat    180
gggtggccaa ccgcttctcc tcaagttcca ananagtggg caattagtga aattccatca    240
gtcatgttaa aatatacttt caccaggtan acatccttct ttcaatgcta gaggacagtg    300
aaaaatgtag attaatgaga tctgtaactg tcttctctta actgtacacc cctcaggctg    360
aacgcgggag tgctgaacac atgccctcgg aagggaccct gaagacccaa gtgacctgca    420
ccataaaacc accccgaggg tcagccatgc tgccagcact caaaaagcag cagggccacc    480
tgctggaana actgggcacg gctctgggtg cctggccctg cctgcctcct ccacgtcctt    540
gganccaggt ctacggnagg accatgatct tcttctccan cttctgtgga aggaacanga    600
anttttttcat gatgtcntcc actcttctag ggccaactgg gcatggactt ggccacgtc   659
```

        <210> 266
        <211> 620
        <212> DNA
        <213> Homo Sapiens

        <400> 266
```
ccatccaaga taactttatt ccattttgca ttatttgata actatttcct tccctccccc    60
acctccaact gcatctccta ttntnaaatg cctcttgagc agccaagggt ggccagttct    120
gctcctcatt ttcctgaana anaatctcag cctgaaagaa tatagagcta ggtgacatat    180
gggtggccaa ccgcttctcc tcaagttcca ananagtggg caattagtga aattccatca    240
gtcatgttaa aatatacttt caccaggtan acatccttct ttcaatgcta gaggacagtg    300
aaaaatgtag attaatgaga tctgtaactg tcttctctta actgtacacc cctcaggctg    360
```

```
aacgcgggag tgctgaacac atgccctcgg aagggaccct gaagacccaa gtgacctgca    420
ccataaaacc accccgaggg tcagccatgc tgccagcact caagaagcag cagggccacc    480
tgctggaaga cctgggcacg gctctgggtg cctggccctg cctgcctcct ccacgtcctt    540
ggagccaggt ctacngcang aacatgatct tcttctccac ttctgtggaa ggaacaggaa    600
nttttcatg atgtcatcca                                                 620


        <210> 267
        <211> 745
        <212> DNA
        <213> Homo Sapiens


        <400> 267
ccccccagac aggcctgcag tcaaatgctc caatcattcc tcaaggagtc aatgagccca     60
gcactactac aagtcagaaa tctggaagcg taaccacaga acagctccaa gaggttcttt    120
tgtcagctta tgaccctcaa attccaacac gggctgctgc cctgcgtact ctttcccact    180
ggatagagca gagagaagca aaagcccttg agatgcaaga gaagcttctc aagatattct    240
tggaaaactt ggaacatgaa gacacttttg tatatctatc tgcaattcag ggggttgccc    300
tgctgtcaga cgtctatcct gagaaaatct tgccggactt gttggctcaa tatgacagca    360
gcaaagacaa gcacacacca gagaccaaga atgaaagtcg gggaagtcct tatgcgaatc    420
gtcagggcat taggagacat ggtctcaaag taccgagaac ctttgatcca taccttcctg    480
aggggagtga gagatcctga tggtgctcac agggccagca gcttgggcaa ccttgggggag    540
ctgtgccaga ggctggactt tctgctgggc tccgtggtcc atgaggtaac agcttgcctg    600
attgctgtgg ccaaaaacat tntntgaaag ttcaagttcg cannagctgg ccaanacaat    660
gtggggttgt gcctgcnngc tttcgggggga actcaacccca agaaaaagct tantgtaagg    720
gtggnttaan ccnccggtcc ttcaa                                          745


        <210> 268
        <211> 676
        <212> DNA
        <213> Homo Sapiens


        <400> 268
ccatccaaga taactttatt ccattttgca ttatttgata actatttcct tcccctcccc     60
acctccaact gcatctccta ctctgaaatg cctcttgagc agccaagggt ggccagttct    120
gctcctcatt ttcctgaana anaatctcag cctgaaagaa tatagagcta ggtgacatat    180
gggtggccaa ccgcttctcc tcaagttcca ananagtggg caattagtga aattccatca    240
gtcatgttaa aatatacttt caccaggtag acatccttct ttcaatgcta gaggacagtg    300
aaaaatgtag attaatgaga tctgtaactg tcttctctta actgtacacc cctcaggctg    360
aacgcgggag tgctgaacac atgccctcgg aagggaccct gaagacccaa gtgacctgca    420
ccataaaacc accccgaggg tcagccatgc tgccagcact caagaagcag cagggccacc    480
tgctggaana cctgggcacg gctctgggtg cctggccctg cctgcctcct ccacgtcctt    540
gggagccagg tctacggcag ggaacatgat cttcttctcc agcttctgtg gaaggaacag    600
gaagtttttc atgatgtcat ccanctcttc taaggccaac tgggcatgga acttggccac    660
gtcatcgggc tccaaa                                                    676


        <210> 269
        <211> 737
        <212> DNA
        <213> Homo Sapiens


        <400> 269
aacaaagaca aagaaggcaa ggttttctac agcatcactg gccaaggagc tgacacaccc     60
cctgttggtg tctttattat tgaaagagaa acaggatggc tgaagctctt ctctcacgct    120
gtgtcatcca acgggaatgc agttgaggat ccaatggaga ttttgatcac ggtaaccgat    180
cagaatgaca acaagcccga attcacccag gaggtcttta gggggtctgt catggaaggt    240
```

```
gctcttccag gaacctctgt gatggaggtc acagccacag acgcggacga tgatgtgaac    300
acctacaatg ccgccatcgc ttacaccatc ctcagccaag atcctgagct ccctgacaaa    360
aatatgttca ccattaacag gaacacagga gtcatcagtg tggtcaccac tgggctggac    420
cgagagagtt tccctacgta taccctggtg gttcaagctg ctgaccttca aggtgagggg    480
ttaagcacaa cagcaacagc tgtgatcaca gtcactgaca ccaacgataa tcctccgatc    540
ttcaatccca ccacgtacaa gggtcangtg cctganaaag aaggctaacg tcgttatcac    600
caacactgaa aagtgactga tgcctgatgc cccccaatta ncccanccgt gggaagctgt    660
ntacaccata tngaaatgat gatgggtggg cnaatttgtn cgttcaccaa caaatnccan    720
gtggaacaac caatggg                                                  737
```

```
    <210> 270
    <211> 726
    <212> DNA
    <213> Homo Sapiens


    <400> 270
ccatccaaga taactttatt ccattttgca ttatttgata actatttcct tcccctcccc     60
acctccaact gcatctccta ctctgaaatg cctcttgagc agccaagggt ggccagttct    120
gctcctcatt ttcctgaana anaatctcag cctgaaagaa tatanagcta ggtgacatat    180
gggtggccaa ccgcttctcc tcaagttcca ananagtggg caattagtga aattccatca    240
gtcatgttaa aatatacttt caccaggtan acatccttct ttcaatgcta gaggacagtg    300
aaaaatgtag attaatgaga tctgtaactg tcttctctta actgtacacc cctcaggctg    360
aacgcgggag tgctgaacac atgccctcgg aagggaccct gaagacccaa gtgacctgca    420
ccataaaacc accccgaggg tcngccatgc tgccagcact caanaagcag cagggccacc    480
tgctggaana cctgggcacg gctctgggtg cctggccctg cctgcctcct ccacgtcctt    540
ggagccaggt ctacggcagg aacatgatct tcttctccac ttctgtggaa ggaacangaa    600
atttttcatg atgtctccan ctcttctagg gccactgggc atggancttg ggcncntcat    660
cgggctccaa anacactact gcttcancag gtgggtanaa atccttgaag angggctcac    720
acctcc                                                              726
```

```
    <210> 271
    <211> 814
    <212> DNA
    <213> Homo Sapiens


    <400> 271
ccatccaaga taactttatt ccattttgca ttatttgata actatttcct tcccctcccc     60
acctccaact gcatctccta ctctgaaatg cctcttgagc agccaagggt ggccagttct    120
gctcctcatt ttcctgaaga agaatctcag cctgaaagaa tatagagcta ggtgacatat    180
gggtggccaa ccgcttctcc tcaagttcca agagagtggg caattagtga aattccatca    240
gtcatgttaa aatatacttt caccaggtag acatccttct ttcaatgcta gaggacagtg    300
aaaaatgtag attaatgaga tctgtaactg tcttctctta actgtacacc cctcaggctg    360
aacgcgggag tgctgaacac atgccctcgg aagggaccct gaagacccaa gtgacctgca    420
ccataaaacc accccgaggg tcagccatgc tgccagcact caagaggcag cagggccacc    480
tgctggaaga cctgggcacg gctctgggtg cctggccctg cctgcctcct ccacgtcctt    540
ggagccaggt ctacggcagg accatgatct tcttctccag cttctgtggg agggaacagg    600
gaagtttttc aatgatgtca tccagctctt cctanggcca actgggcaag ggagcttggg    660
caacgtcatc ggggctccag acaaaactac gtgcttcanc aanggtggta aaanatcctt    720
gaaggacggg ggctcaacaa cccaagtanc ctttccnggg ctgaatcccc ngaagcaagc    780
aagnacaaac cacatgtttt gggaagctcc ggcg                               814
```

```
    <210> 272
    <211> 862
    <212> DNA
    <213> Homo Sapiens
```

```
       <400> 272
gtacactgaa cagaaaagat ctggaaggga aaatagaaga gcagcaacaa accagtcatg      60
aaagacccac tgatgtagct catagccacc ttgaacaaca gcagagccat gagacagccc     120
cccagacagg cctgcagtca aatgctccaa tcattcctca aggagtcaat gagcccagca     180
ctactacaag tcagaaatct ggaagcgtaa ccacagaaca gctccaagag gttctttgt      240
cagcttatga ccctcaaatt ccaacacggg ctgctgccct cgtactctt tcccactgga      300
tagagcagag agaagcaaaa gcccttgaga tgcaagagaa gcttctcaag atattcttgg      360
aaaacttgga acatgaagac acttttgtat atctatctgc aattcagggg gttgccctgc      420
tgtcagacgt ctatcctgag aaaatcttgc cggacttgtt ggctcaatat gacagcagca      480
aagacaagca cacaccagag accaagaatg aaagtcgggg aagtccttat gcgaatcgtc      540
agggcattag ggagacatgg tctcaaagta ccgagaacct ttgattcata ccttcctgan     600
gggagtgaga gattctggat ggtgctcaca agggcagcaa cttgggcaan cttgggggaa      660
ctggtgccag aggctggact ttcngctggg gctccgtggg ccaatggagg gtacaanctt      720
gccctgaatt gctgtgggcc aaaaacaaga tnggtgaaag tttaaagtta cgcaaaactg      780
ccaatacaat gttgggttgt tgccnggctg gnnttccggg ggaatcaagc ccaggaaaag      840
cctaccggan ggggccttaa ac                                              862


       <210> 273
       <211> 677
       <212> DNA
       <213> Homo Sapiens


       <400> 273
ccatccaaga taactttatt ccattttgca ttatttgata actatttcct tcccctcccc      60
acctccaact gcatctccta ctctgaaatg cctcttgagc agccaagggt ggccagttct     120
gctcctcatt ttcctgaaga agaatctcag cctgaaagaa tatagagcta ggtgacatat     180
gggtggccaa ccgcttctcc tcaagttcca agagagtggg caattagtga aattccatca     240
gtcatgttaa aatatacttt caccaggtan acatccttct ttcaatgcta gaggacagtg      300
aaaaatgtag attaatgaga tctgtaactg tcttcnctta actgtacacc cctcaggctg      360
aacgcgggag tgctgaacac atgccctcgg aagggaccct gaagacccaa gtgacctgca      420
ccataaaacc accccgaggg tcagccatgc tgccaagcac tcaagaggca gcagggccac      480
ctgctggaan acctgggcac ggntctgggt gcctgggccc tgcctgcctc ctccangtcc      540
ttggggccaa gtctaaggga agggaccaat gatcttcttc cccaaacttc tgtggagggg      600
aaaaaaggaa nttttcaag gnggtcatcc nangctcctc caagggnca aaatgggggc      660
antggaacct tgggcaa                                                    677


       <210> 274
       <211> 863
       <212> DNA
       <213> Homo Sapiens


       <400> 274
gaaaacagca aagttgaagt caagtgattt tgctgttctg aagcagttgt tgcctctgtt      60
ggagaaggta tccaacacat accctgatcc ggtcatccaa gaactcgctg ttgatctccg     120
catcaccatc tctacccatg gagcctttgc cactgaggcc gtcagcatgg ctgcccaaag     180
tacactgaac agaaaagatc tggaagggaa aatagaagag cagcaacaa ccagtcatga      240
aagacccact gatgtagctc atagccacct tgaacaacag cagagccatg agacagcccc      300
ccagacaggc ctgcagtcaa atgctccaat cattcctcaa ggagtcaatg agcccagcac      360
tactacaagt cagaaatctg gaagcgtaac cacagaacag ctccaagagg ttcttttgtc      420
agcttatgac cctcaaattc caacacgggc tgctgccctg cgtactcttt cccactggat      480
agagcagaga gaagcaaaag cccttgagat gcaagagaag cttctcaaga tattcttgga      540
aaacttggaa catgaagaca cttttgtata tctatctgca attcaggggg ttgccctgct      600
gtcagacgtc tatcctgaga aaatcttgcc ggacttgttg gctcaatatg acagcagcaa      660
agacaagcac acaccagaga ccaagaatga aagtcgggga agtccttatg ccaatcgtc      720
anggcattag ggagacatgg tctcaaagta accgagaacc tttgattcat accttcctga      780
```

```
agggggaatta gagattctga atggtgctca cagggccaac aaccttggcn aaccttgggg      840
aacctgtgcc anaaggctng gac                                               863
```

```
        <210> 275
        <211> 821
        <212> DNA
        <213> Homo Sapiens


        <400> 275
ccatccaaga taactttatt ccattttgca ttatttgata actatttcct tcccctcccc       60
acctccaact gcatctccta ctctgaaatg cctcttgagc agccaagggt ggccagttct      120
gctcctcatt ttcctgaaga agaatctcag cctgaaagaa tatagagcta ggtgacatat      180
gggtggccaa ccgcttctcc tcaagttcca agagagtggg caattagtga aattccatca      240
gtcatgttaa aatatacttt caccaggtag acatccttct ttcaatgcta gaggacagtg      300
aaaaatgtag attaatgaga tctgtaactg tcttctctta actgtacacc cctcaggctg      360
aacgcgggag tgctgaacac atgccctcgg aagggaccct gaagacccaa gtgacctgca      420
ccataaaacc accccgaggg tcagccatgc tgccagcact caagaggcag cagggccacc      480
tgctggaaga cctgggcacg gctctgggtg cctggccctg cctgcctcct ccacgtcctt      540
ggagccaggt ctacggcagg accatgatct tcttctccaa gcttctgtgg agggaacagg      600
aagttttttca tgatgtcatc caagctcttc tanggccaac tgggcatgga gcttgggcac      660
gtcatcgggc tccagacaca ctacgtgctt cancaaggtg gtaaaagatt cttganggac      720
gggngctcanc acctcagtaa nctttctggc tgagtccccc gaaagcaaca gcacaancca      780
catgtntngg aaaccctgcg ttacttngaa cttcaacaac c                         821
```

```
        <210> 276
        <211> 722
        <212> DNA
        <213> Homo Sapiens


        <400> 276
aacagctgtg atcacagtca ctgacaccaa cgataatcct ccgatcttca atcccaccac       60
gtacaagggt caggtgcctg agaacgaggc taacgtcgta atcaccacac tgaaagtgac      120
tgatgctgat gcccccaata ccccagcgtg ggaggctgta tacaccatat tgaatgatga      180
tggtggacaa tttgtcgtca ccacaaatcc agtgaacaac gatggcattt tgaaaacagc      240
aaagttgaag tcaagtgatt ttgctgttct gaagcagttg ttgcctctgt tggagaaggt      300
atccaacaca taccctgatc cggtcatcca agaactcgct gttgatctcc gcatcaccat      360
ctctacccat ggagcctttg ccactgaggc cgtcagcatg gctgcccaaa gtacactgaa      420
cagaaaagat ctggaaggga aaatagaaga gcagcaacaa accagtcatg aaagacccac      480
tgatgtagct catagccacc ttgaacaaca gcagagccat gaagacagcc ccccagacag      540
gcctgcagtc aaatgctcca atcattcctc aaggagtcaa tgagcccagc actactacaa      600
gtcagaaatc tggaagcgtt accacagaac agctccaaga ggttcnttttg tcagctttat      660
gaacctcaaa ttccaacacg gggctggtgc ctgcgttact cnttcccact gggntagaag      720
ca                                                                     722
```

```
        <210> 277
        <211> 805
        <212> DNA
        <213> Homo Sapiens


        <400> 277
ccatccaaga taactttatt ccattttgca ttatttgata actatttcct tcccctcccc       60
acctccaact gcatctccta ctctgaaatg cctcttgagc agccaagggt ggccagttct      120
gctcctcatt ttcctgaaga agaatctcag cctgaaagaa tatagagcta ggtgacatat      180
gggtggccaa ccgcttctcc tcaagttcca agagagtggg caattagtga aattccatca      240
gtcatgttaa aatatacttt caccaggtag acatccttct ttcaatgcta gaggacagtg      300
```

```
aaaaatgtag attaatgaga tctgtaactg tcttctctta actgtacacc cctcaggctg   360
aacgcgggag tgctgaacac atgccctcgg aagggaccct gaagacccaa gtgacctgca   420
ccataaaacc accccgaggg tcagccatgc tgccagcact caagaggcag cagggccacc   480
tgctgggaag acctgggcac ggctctgggt gcctgggccc tgcctgcctc ctccacgtcc   540
ttggagccaa ggtctacggc aggaccatga tcttcttctc cagcttctgt ggagggaaca   600
ngaagttttt caagatgtca tccaactcct ccaagggcca actggggcat gggagccttg   660
gcacgtcatn cgggctccag acacactacg gtgcttcaac aagggnggta nagattcttg   720
anggacgggg ctcaaacaat gaacctcant tacctttcng gctgagtccc cnaaagcaac   780
aagtacaaac cacatgtttt gggaa                                        805
```

```
        <210> 278
        <211> 1358
        <212> DNA
        <213> Homo Sapiens


        <400> 278
agaactcaga gctgctcttc ctctgtggcc agttggggac cagcatcatg aagtggatgg    60
tggtggtctt ggtctgcctc cagctcttgg aggcagcagt ggtcaaagtg cccctgaaga   120
aatttaagtc tatccgtgag accatgaagg agaagggctt gctggggggag ttcctgagga   180
cccacaagta tgatcctgct tggaagtacc gctttggtga cctcagcgtg acctacgagc   240
ccatggccta catggatgct gcctactttg gtgagatcag catcgggact ccaccccaga   300
acttcctggt cctttttgac accggctcct ccaacttgtg ggtgccctct gtctactgcc   360
agagccaggc ctgcaccagt cactcccgct tcaaccccag cgagtcgtcc acctactcca   420
ccaatgggca aaccttctcc ctgcagtatg gcagtggcag cctcaccggc ttctttggct   480
atgacaccct gactgtccag agcatccaan gtccccaacc aggagttcgg cttgagtgag   540
aatnagcctg ggtaccaact tcgtctaagc gcagtttgat ggcatcatgg gcctggcctt   600
accctgctct gtccgtggat gaggccacca cagtatgcag ggcatgtgca ggagggcgcc   660
ctnaaccagc cccgtnttca gggtttacnt cagcaaccag cagggctccc agcgggggag   720
cggttgtcct ttgggggtgt ggatagcagc ntgtacacgg ggcagatcta ctgggcgcnt   780
gtcacccagg aactctactg gcagattggc attgaagagt tcctcatcgg cggccaggcc   840
tccggctggt gttctgaggg ttgccaggcc atcgtggaca caggcacctc tctgctcact   900
gtgccccagc agtacatgag tgctcttctg caggccacag gggcccagga ggatgagtat   960
ggacagtttc tcgtgaactg taacagcatt cagaatctgc ccagcttgac cttcatcatc  1020
aatggtgtgg agttccctct gccaccttcc tcctatatcc tcagtaacaa cggctactgc  1080
accgtgggag tcgagcccac ctacctgtcc tcccagaacg gccagcccct gtggatcctc  1140
ggggatgtct tcctcaggtc ctactattcc gtctacgact tgggcaacaa cagagtaggc  1200
tttgccactg ccgcctagac ttgctgcctc gacacgtggg ctcccctctt cctcttgacc  1260
ctgcaccctc ctagggcatt gtatctgtct ttccactctg gattcagcct tcttttctg  1320
gactctggac tttctctaat aataaatagt tcttcttt                         1358
```

```
        <210> 279
        <211> 702
        <212> DNA
        <213> Homo Sapiens


        <400> 279
gaagcaatga atacgcaatt agaactttca gaacaactta aatttcagaa caactctgaa    60
gataatgtta aaaaactaca agaagagatt gagaaaatta ggccaggctt tgaggagcaa   120
attttatatc tgcaaaagca attagacgct accactgatg aaaagaagga aacagttact   180
caactccaaa atatcattga ggctaattct cagcattacc aaaaaaatat taatagtttg   240
caggaagagc ttttacagtt gaaagctata caccaagaag aggtgaaaga gttgatgtgc   300
cagattgaag catcagctaa ggaacatgaa gcagagataa ataagttgaa cgagctaaaa   360
gagaacttag taaaacaatg tgaggcaagt gaaaagaaca tccagaagaa atatgaatgt   420
gagttagaaa atttaaggaa agccacctca aatgcaaacc aagacaatca gatatgttct   480
attctcttgc aagaaaatac atttgtagaa caaagtagta atgaaaaaag tcaaacactt   540
```

```
agaagatacc ttaaaaagaa cttgaatctc aacacagtat cttaaaaaga tgagggtaac    600
ttatatgaat aatccttaag tttaaaactt gaaaatggga tgcctcaacc attttaaagg    660
gtngaggttt tttccangna accggggggaa gaccttaaaa gg                      702
```

        <210> 280
        <211> 874
        <212> DNA
        <213> Homo Sapiens

        <400> 280
```
aactcaaaac agtgttaagt tcctatgctg ttagtactgt atcttgtcca cacctcaaac     60
aacagtgaga tctctgagca catggtctgt acctcaacca cttttctatc accagggtct    120
agaatagttg ggcatttaaa taaaatttgc taaatgaatg aaaaatccaa aataaatcat    180
gaagccattt ataaatcaca ccaatcttgc ttgggttaaa caatagaaag taacactttt    240
gaaagagaag gcaaacaggt gttagagggg caagaatgtg agctcgagga aaagacagct    300
acgaactgtg tttttaacaa ctcattattt ggctactata tttcccaatc tattctaaca    360
ctaagaagaa tctgtctaat taattgtgac aacatctgca aaaccatagt tacctatttt    420
ttcttccaac tcttttactg aagacagagg atcatttttt acagaaggtg attttgctaa    480
ggaatcctan attttacagg ggggaaaaaa aaacacnaaa caaaacaaaa accagaatca    540
gaattcattt tccataatga actggccatc ntgttaagca taanaaaatc actatcaaag    600
anaattccta cagaaaccaa tttggtcaca gaatttccct tgttanacca gaaaattaat    660
actgaactta ctatgcatat ggcatttact attaaaaaaa aaaaagtant aaccaaggcc    720
aaganaaaca acctgaaaca ttaaatacat ntttataagg aaaaantaaa tgaatttttaa   780
tcttaatttt aaanaaaaac cnaaaatttt nncataccc ccgctctta cttaaaaant     840
gncttaccaa aatactaanc ctttccccaa aacc                                874
```

        <210> 281
        <211> 730
        <212> DNA
        <213> Homo Sapiens

        <400> 281
```
acaaaacagc agctggaaag agaaatgtag gtggcagacg agccaggcac gaggtttcag     60
attggaaggg accaagatga ggaccaaggt gtggctgcct gactaggaac gctgtgggct    120
ggcccaggct ctcgccacac atcctgggan aactgccata ggccctagaa ggagggatga    180
aaggcgtatg ggagggaana cagcggtccc cggatcagca gcagcaccac catcctctga    240
tggcccctgg gcagtccgcc agctcggaag cactcagggc tggagcctgg gctctaagca    300
tgggccccag gagccanaca ggagggaggc agcaggaang gctggcatgg aagggctgag    360
ttctattggg gtcccacgcg ggcaagggaa ccaggactca tccctgcttg tcagccaatc    420
agcttcttca ggaagcctcc aactgatcct catccttgat gcccacaaac ttgtccacca    480
cgtccccatt cttcatggcc agcacagtgg gcaccgctga cacctcatac tcaatggcga    540
agtctgtgtg gtcntcaata tccaccttgg ccatcaccac cttcccgtgc tgcttggcca    600
ccatcttctc taacctccgn cccangatct tcagggtcca caccactgtg cgtggaaatc    660
cacaaccact ggtgtctcct gtttgaacac tccgtcttga aantcngtcc ntcctgnata    720
ttaaaggttg                                                           730
```

        <210> 282
        <211> 699
        <212> DNA
        <213> Homo Sapiens

        <400> 282
```
agaactcaga gctgctcttc ctctgtggcc agttggggac cagcatcatg aagtggatgg     60
tggtggtctt ggtctgcctc cagctcttgg aggcagcagt ggtcaaagtg cccctgaaga    120
aatttaagtc tatccgtgag accatgaagg agaagggctt gctgggggag ttcctgagga    180
```

```
cccacaagta tgatcctgct tggaagtacc gctttggtga cctcagcgtg acctacgagc        240
ccatggccta catggatgct gcctactttg gtgagatcag catcgggact ccaccccaga        300
acttcctggt cctttttgac accggctcct ccaacttgtg ggtgccctct gtctactgcc        360
agagccaggc ctgcaccagt cactcccgct tcaacccccag cgagtcgtcc acctactcca       420
ccaatgggca aaccttctcc ctgcagtatg gcagtggcag cctcaccggc ttctttggct        480
atgacaccct gactgtccag agcatccaan gtccccaacc aggagttcgg cttgagtgag        540
aatnagcctg ggtaccaact tcgtctaagc gcanttttga tgggatcaag ggcctgggcc        600
taacctggct ctgtcccgtt ggattaaggc caccacaagc tatntagggc nattnggntc        660
aaggatgggt gtcnctttat nnagcccccg tnctttcaa                                699
```

```
        <210>  283
        <211>  759
        <212>  DNA
        <213>  Homo Sapiens

        <400>  283
gaaattgaga actgatttaa tactaaagtt ctgaataaag gtgtgcactt tatgattgat        60
tctatctttt tgcacaagtt ggatactcca gtttcccatc ccaacatgtt gttcgcaatg        120
tgtgagaacg tgatgaaaga cgatatcccc gtttacacac aaattcaact gattcacctg        180
ttctcgaata aagcttctgt ttggctgtcc accttaatgc tatgttataa ttttccataa        240
tttctcggga tattacacac ggatgtaagc attttggtgg ttctgaccat tgtccatttc        300
tacatgttat tcgcttgtta ccctcaagtt gatacaagtt ctggcattgg tactcaactg        360
atgaagctgg agcatatact gacaacggga atgaagtaat gtccccattg tcaataggtg        420
gagggggccc acattttcct gtagaatctt tgcattgagg tggttccgtc cagtttccat        480
ttaaacacat cacttcttca tccccaaaca tttcataagg gctcctacat tgataacgta        540
ctctctcacc agatggatat ttactcatct gtctcgacac tatataagca ttttgtactg        600
tgggcggatt ccacangang tgtctctgca tgttgggctt cctgtccact gctattaatg        660
catgttacat tactggctcc accattttgt aatatgttgc acaagtttta gtccttgctc        720
acccccttat acacatcctt ctctctccat gggtttggc                                759
```

```
        <210>  284
        <211>  764
        <212>  DNA
        <213>  Homo Sapiens

        <400>  284
ggaccgcgat gacgcagact ggagggaggt gatgatgccc tattcgacag aactgatatt        60
ttatattgaa atggatcctc cagctcttcc accaaagcca cctaagccaa tgacttcagc        120
agttccaaca tggaatgaag gacagttctg tttctcttca ggatgcagaa tggtactggg        180
gggatatttc aagggaggag gtaaatgaca aattgcggga tatgccagat gggaccttct        240
tggtccgaga tgcctcaaca aaaatgcagg gagattatac tttgactttg cggaagggag        300
gcaataataa gttaataaag atctatcacc gggatggtaa atatggcttt tctgatcctc        360
tgacatttaa ttccgtggtg gagctcatta accactatca ccatgaatct cttgctcagt        420
acaatcccaa acttgatgtg aagctgatgt acccaagtgt ccagatacca acaggatcag        480
ttggtaaaag aagataatat tgatgcagta ngtaaaaaac tgcaagaata ccactctcaa       540
gtatcaggag aagagtaaag gagtatgata ngctgtatga agaatatact agaacatccc        600
aaggaaatac agatgaagag gactgcaata gaaagctttt aatgaaaaca ttaaaatatt        660
tggaagagca ntgtcacaca caaggaacca acattnccaa agaatatatt gagnngattt        720
cncaaaanaa ggggaaatga aaagggggan ttgaacgaaa ttta                          764
```

```
        <210>  285
        <211>  586
        <212>  DNA
        <213>  Homo Sapiens
```

```
        <400> 285
gcattgcacc ttttctttac ccatacaaac aagttacaaa ggtttcaaac aacagntcat      60
tctttaggct aaggaaacac catacaagca ccaacttcat tttangattc aaagctcacc     120
atccccacaa aaagaatgct attccncatc tcagagaaac aggcaggaag gacanaaggg     180
gttagttaca gtgatcaatt ttagcgtttg ctaaaacnca caaattcnag ncttttttaag    240
ttcaagtttt ggtacagaag tatacattca actatgagtg ccacgttttc ccatcaaaca     300
ttggnctggc aacaaactgt tttgttggct tctgaacata atacttcttc anagggaggg     360
gctggtgaaa tgctgaancc taaattatgt tggnaagaaa caaagtacct tcanttgaag     420
gttttttta acanctnggc ttaaattatt taaatgaaan cccaagcctc ccnatttncc      480
tttggtngcc ttttncanaa aatcccattc natcacaaaa ccctaaaaag ccttcttcgt     540
nggggggaaa aaananactg ccaaangcaa aaacaaaaac ncccaa                    586


        <210> 286
        <211> 666
        <212> DNA
        <213> Homo Sapiens


        <400> 286
gcctggagtt cagtgggtgc agcctgcttg cgagctgagg ccagacaggg gggcgcctac      60
ggacggaaaa gaaaagttga ttacaaacgg gaccatattt tgcttcgaaa tggaaccagc     120
agttagcgag ccaatgagag accaagtcgc acggactcat ttgacagagg acactcccaa     180
agtgaatgct gacatagaaa aggttaacca gaatcaggcc aagagatgca cagtgatcgg     240
gggctctgga ttcctggggc agcacatggt ggagcagttg ctggcaagag gatatgctgt     300
caatgtattt gatatccagc aagggtttga taatcccag gtgcggttct ttctgggtga      360
cctctgcagc cgacaggatc tgtacccagc tctgaaaggt gtaaacacag ttttccactg     420
tgcgtcaccc ccaccatcca gtaacaacaa ggagctcttt tatagaagtg aattacattg     480
gcaccaagaa tgtcattgaa acttgcaaag aggctggggt tcagaaactc attttaacca     540
gcagtgccat gtcatctttg agggcgtcga tatcaagaat ggaactgaaa gaccttccct     600
nagccattga aaccaattga cctactacac aaganactaa agatcttaca ngagaaggca     660
atttct                                                                666


        <210> 287
        <211> 782
        <212> DNA
        <213> Homo Sapiens


        <400> 287
gacagagaac aaatcggtat aatatgaagc tgcctgcttc aagaaatcca aatccagttc      60
catgaaggaa gaaatgtctg tttttgccgc cctcatcgtc acggaaagag tagggtgcgc     120
tctctgccta gcagaaggag tcacaggctc agagcaaact cattcaaagg atgttatttc     180
atcaatccac aggggaagga gtgactggct gagcaacgtg tcgagagagc ccagcctcca     240
gtgtccctca cttgaccctc cgcaggtggc gaaagctctg cacggtcctc tccatagcat     300
catccatggt cactagtggc tggtagccca tggccttttt ggctctctcg cagctgtagt     360
agtggaatgt gccagccagt gcgacccgca tgggtgtgaa ggtgggctgc agctggatga     420
caggactgat caccatcacc agcagggata gcaggagggc caggtagtag gccacccagt     480
aggggatgtg gtacttgggg gcctcataat tgaggcctgt caaggatgcg agacaggaat     540
gtccaaaaag ggatgggctc atcattggtg atgtgaaatg ccttcccacc cagtgtcgag     600
tctcngggan anctgctctg ccgccaagat tgtccatggg accaaggttc tcacaaaggt     660
gaaagtccac caagttcctc ccaatttcca atcacgaaac ttcaaccttg ccgttcctgg     720
ctgcctccat gaaggatggg ttacaaactg ccgggttccc tttggggccg aaaaattgcc     780
aa                                                                    782


        <210> 288
        <211> 707
        <212> DNA
```

```
        <213> Homo Sapiens

        <400> 288
gtggttccag cgccggtttt gaccgccaca ttaccatttt ttcacccgag ggtcggctct      60
accaagtaga atatgctttt aaggctatta accagggtgg ccttacatca gtagctgtca     120
gagggaaaga ctgtgcagta attgtcacac agaagaaagt acctgacaaa ttattggatt     180
ccagcacagt gactcactta ttcaagataa ctgaaaacat tggttgtgtg atgaccggaa     240
tgacagctga cagcagatcc caggtacaga gggcacgcta tgaggcagct aactggaaat     300
acaagtatgg ctatgagatt cctgtggaca tgctgtgtaa aagaattgcc gatatttctc     360
aggtctacac acagaatgct gaaatgaggc ctcttggttg ttgtatgatt ttaattggta     420
tagatgaaga gcaaggccct caggtatata agtgtgatcc tgcaggttac tactgtgggt     480
ttaaagccac tgcagcggga gttaaacaaa ctgagtcaac cagcttcctt gaaaaaaaag     540
tgaagaagaa atttgattgg acatttgaac agacagtgga aactgcaatt acatgcctgt     600
ctactgttcc atcaattgan ttcaaacctt cagaaataga aattgggagt aatgacagtt     660
gaaaatccta aattcangan tcctacagaa gcagagattg atgctca                   707
```

```
        <210> 289
        <211> 673
        <212> DNA
        <213> Homo Sapiens

        <400> 289
atggcaccat cacaacaaag gaacttggaa ctgtcatgag gtcactgggt cagaacccaa      60
cagaagctga attgcaggat atgatcaatg aagtggatgc tgatggtaat ggcaccattg     120
acttcccccnn atttttgact atgatggcta gaaaaatgaa agatacagat agtgaagaag     180
aaatccgtga ggcattccga gtctttgaca aggatggcaa tggttatatc agtgcagcag     240
aactacgtca cgtcatgaca aacttaggag aaaaactaac agatgaagaa gtagatgaaa     300
tgatcagaga agcagatatt gatggagacg gacaagtcaa ctatgaagaa ttcgtacaga     360
tgatgactgc aaaatgaaga cctactttca actccttttt ccccctcta gaagaatcaa       420
attgaatctt ttacttacct cttgcaaaaa aaaaaaaat aagncanaaa annnataaaa     480
aaaaaaacnc gagagtactt ctaaagcggc cgcgggccna tcgattttcc acccgggtgg     540
ggtaccaggt aagtgtccca attcgcccta taggggagtc gtattacaat tcacggggcc     600
gtcgttttta aaacgtcntg acggggaaa accctggngt taccaactta atccccctcttg     660
caacaaatnc ccc                                                        673
```

```
        <210> 290
        <211> 573
        <212> DNA
        <213> Homo Sapiens

        <400> 290
gcaagaggta agtaaaagat tcaatttgat tcttctanag gggggaaaaa ggagttgaaa      60
gtaggtcttc attttgcagt catcatctgt acgaattctt canagttgac ttgtccgtct     120
ccatcaatat ctgcttcnct gatcatttca tctacttctt catctgttag tttttcnccn     180
aagtttgtca tgacgtgacg tagttctgct gcactgatat aaccattgcc atccttgtca     240
aagactcgga atgcctcacg gatttcttct tcactatctg tatctttcan ttttcnagcc     300
atcatagtca aaaattcggg gaantcaatg gngccattac catcagcatc cacttcattg     360
atcatatcct gnaattcaan cttctgttgg gttntgaccc antgaccnca nggacaagtt     420
ccaagttccc tttggttgtg aagggtgcca nctcgtgccc gaattccttt gggntccnac     480
gangggtcna accctgcana ggngccgcga ancctccaan cttttggttc ccctttanat     540
ngagggttaa atttcgaact ttggntttttt tcc                                 573
```

```
        <210> 291
        <211> 819
        <212> DNA
```

<213> Homo Sapiens

<400> 291
```
aaagaagaac tatttattat tagagaaagt ccagagtcca gaaaaagaag gctgaatcca      60
gagtggaaag acagatacaa tgccctagga gggtgcaggg tcaagaggaa gaggggagcc     120
cacgtgtcga ggcagcaagt ctaggcggca gtggcaaagc ctactctgtt gttgcccaag     180
tcgtagacgg aatagtagga cctgaggaag acatccccga ggatccacag gggctggccg     240
ttctgggagg acaggtaggt gggctcgact cccacggtgc agtagccgtt gttactgagg     300
atataggagg aaggtggcag agggaactcc acaccattga tgatgaaggt caagctgggc     360
agattctgaa tgctgttaca gttcacgaga aactgtccat actcatcctc ctgggcccct     420
gtggcctgca gaagagcact catgtactgc tggggcacag tgagcagaga ggtgcctgtg     480
tccacgatgg cctggcaacc ctcagaacac cagccggagg cctggccgcc gatgaggaac     540
tcttcaatgc caatctgcca gtagagttcc tgggtgacan gcgcccagta gatctgcccc     600
gtgtacangc tgctatccac acccccaaag gacaaccgct ccccgctgg gagccctgct       660
ggttgctgan gtaaaccctg aanacggggc tggttnaggg cgccctcctg cacatgccct     720
gcatactgtg gtggcctcat ccacggncna aaccanggta aggcaaggcc catgatgcca     780
tcaaactgcc ataacaaatt tgtacaaggc tcaatccca                            819
```

<210> 292
<211> 664
<212> DNA
<213> Homo Sapiens

<400> 292
```
ctcgcgctcg cgctggtggc ggtcgcctgg gtccgcgccg aggaagagct aaggagcaaa      60
tccaagatct gtgccaatgt gttttgtgga gccggccggg aatgtgcagt cacagagaaa     120
ggggaaccca cctgtctctg cattgagcaa tgcaaacctc acaagaggcc tgtgtgtggc     180
agtaatggca agacctacct caaccactgt gaactgcatc gagatgcctg cctcactgga     240
tccaaaatcc aggttgatta cgatggacac tgcaaagaga agaaatccgt aagtccatct     300
gccagcccag ttgtttgcta tcagtccaac cgtgatgagc tccgacgtcg catcatccaa     360
tggctggaan ctgagatcat tccagatggc tggttctcta aaggcagcaa ctacagtgaa     420
atcctagaca agtattttaa agaactttga taatggtgat tctcgcctgg actccaagtg     480
aattcctgaa gtttgtggga acangaatga aactgccatc aatattacaa cgtttccagn     540
accaagggag aacaacaagt ttgcctaang ggactccggt ngttgatgcc tctcaatttg     600
aactggtctg gatgaaaaat gcctgàttgg gnaattnaag cttcccaant agtttcncca     660
aatg                                                                  664
```

<210> 293
<211> 719
<212> DNA
<213> Homo Sapiens

<400> 293
```
cactttaatt tctttattca tcaatagtat ccgaaaagga agaatcagga gttacaaaaa      60
caagttaaat gcaatatana agcctactaa atacaaatac aagttcacaa acacatatgc     120
aacagaaact tgtttanatt gtttcttgaa gtttgactac ttaaaaacat aggtgtaaag     180
gaaagacatt cagactggtc cacgtgggct tgttagcagg canaggaacc ctgctttcca     240
aaaactgata tagtccaaag tcacggcatg tgggaatgtt ccatggaca ctggatctta      300
acagatgcta tagtgtttac aaaactacac acacagagaa agcccaagga agcctgcagg     360
ctaagcccta tgcttttaga gggctgaagg aaccaaacct agtttaatcc tgtttgtttg     420
ctccatgcaa aactttatgg aagactcccc agactaggct atttagcagc ttccatgaat     480
ggtcctcaga tcatgtgatt ctacggcata nacgacagct gccctatta cacagaagct       540
gcagaactca agaagaatgt ggatttgctc ttgggganttc aatgttgcag ggtanantaa     600
tcttgggatg ataaccatgt tctaaatgac tagtgaanaa acctgtggtt tcttgctttt     660
aacaaattgg tgtactcttg cccctcccat aatgtccaag ggctgggtaa aacctttga      719
```

<210> 294
<211> 762
<212> DNA
<213> Homo Sapiens

<400> 294

```
agctaaggag caaatccaag atctgtgcca atgtgttttg tggagccggc cgggaatgtg      60
cagtcacaga gaaaggggaa cccacctgtc tctgcattga gcaatgcaaa cctcacaaga     120
ggcctgtgtg tggcagtaat ggcaagacct acctcaacca ctgtgaactg catcgagatg     180
cctgcctcac tggatccaaa atccaggttg attacgatgg acactgcaaa gagaagaaat     240
ccgtaagtcc atctgccagc ccagttgttt gctatcagtc caaccgtgat gagctccgac     300
gtcgcatcat ccagtggctg gaagctgaga tcattccaga tggctggttc tctaaaggca     360
gcaactacag tgaaatccta gacaagtatt ttaagaactt tgataatggt gattctcgcc     420
tggactccag tgaattcctg aagtttgtgg aacagaatga aactgccatc aatattacaa     480
cgtatccaga ccaggagaac aacaaagttg cttaggggac tctgtgttga tgccctcatt     540
gaactgtctg atgaaaatg  ctgattggna actcagcttc aagagtttc  tcaaagtgcc     600
ctcaaaccca tctttcaacc ctcctgagaa agaagtgtgc cctgngaggg attaaacgta     660
atgcagatgg agnctgagac cnaaggtgga ccngttnacc gcctgtgtcc ggtgcccggt     720
ggaaattggg tcnggtncag ccatgaacct gttacgggaa ag                       762
```

<210> 295
<211> 708
<212> DNA
<213> Homo Sapiens

<400> 295

```
cactttaatt tctttattca tcaatagtat ccgaaaagga agaatcagga gttacaaaaa      60
caagttaaat gcaatataga agcctactaa atacaaatac aagttcacaa acacatatgc     120
aacagaaact tgtttanatt gtttcttgaa gtttgactac ttaaaaacat aggtgtaaag     180
gaaagacatt cagactggtc cacgtgggct tgttagcagg cagaggaacc ctgctttcca     240
aaaactgata tagtccagag tcacggcatg tgggaatgtt tccatggaca ctggatctta     300
acagatgcta tagtgtttac aaaactacac acacagagaa agcccaagga agcctgcagg     360
ctaagcccta tgcttttaga gggctgaagg aaccaaacct agtttaatcc tgtttgtttg     420
ctccatgcaa aactttatgg aagactcccc agactaggct atttagcagc ttccatgaat     480
ggtcctcaga tcatgtgatt ctacggcata gacgacagct gccctatttta cacagaagct     540
gcagaactca agaggaatgt ggatttgctc ttgggagttc aatgttgcag ggtaaaagta     600
gtcctggatg ataaccatgt tccaaatgac taagtgaaga gacactgtgg gttcctgcct     660
tttaacaaaa tgggggtact cctgcccctc ctccccanaa atgtccaa                  708
```

<210> 296
<211> 652
<212> DNA
<213> Homo Sapiens

<400> 296

```
cactttaatt tctttattca tcaatagtat ccgaaaagga agaatcagga gttacaaaaa      60
caagttaaat gcaatataga agcctactaa atacaaatac aagttcacaa acacatatgc     120
aacagaaact tgtttanatt gtttcttgaa gtttgactac ttaaaaacat aggtgtaaag     180
gaaagacatt cagactggtc cacgtgggct tgttagcagg cagaggaacc ctgctttcca     240
aaaactgata tagtccagag tcacggcatg tgggaatgtt tccatggaca ctggatctta     300
acagatgcta tagtgtttac aaaactacac acacagagaa agcccaagga agcctgcagg     360
ctaagcccta tgcttttaga gggctgaagg aaccaaacct agtttaatcc tgtttgtttg     420
ctccatgcaa aactttatgg aagactcccc agactaggc  tatttagcag cttccatgaa     480
tggtcctcag atcaagtgat tctacggnat anacgacaag ctgccctatt tacacagaag     540
ctgcangaac tcaagaggga atgtgggatt gccctggggg agttcaatgg ttgcangggt     600
```

```
aaaagttant cttgggntga ataaccaggt ttctaaaatg accaaattga aa          652
```

```
        <210> 297
        <211> 879
        <212> DNA
        <213> Homo Sapiens

        <400> 297
cactttaatt tctttattca tcaatagtat ccgaaaagga agaatcagga gttacaaaaa    60
caagttaaat gcaatataga agcctactaa atacaaatac aagttcacaa acacatatgc   120
aacagaaact tgtttagatt gtttcttgaa gtttgactac ttaaaaacat aggtgtaaag   180
gaaagacatt cagactggtc cacgtgggct tgttagcagg cagaggaacc ctgctttcca   240
aaaactgata tagtccagag tcacggcatg tgggaatgtt tccatggaca ctggatctta   300
acagatgcta tagtgtttac aaanctacac acacagagaa agcccaagga agcctgcagg   360
ctaagcccta tgcttttaga gggctgaagg aaccaaacct agtttaatcc tgtttgtttg   420
ctccatgcaa aactttatgg aagactcccc agactaggct atttagcagc ttccatgaat   480
ggtcctcaga tcatgtgatt ctacggcata gacgacagct gccctattta cacagaagct   540
gcagaactca agaggaatgt ggatttgctc ttgggagttc aatgttgcag ggtagaagta   600
gtcctggatg ataaccatgt tccnaaatga ctagtgaaga gacactgtgg tttcctgcct   660
ttaacaaant ggtgtactcc ttgccctcct ccaatantgt ccaaagggct ggtaaaaacc   720
ctttgattaa aggcgtgctg cctgttgagt tccccaangg nacttgggac anggganccg   780
catttcaaga ccggaacaaa ttgggagttt tgaaaaaagt ttttaaatng ggaatgggtt   840
acataaaaan gcttgaaatg gctaaaacaa aggngggaa                          879
```

```
        <210> 298
        <211> 697
        <212> DNA
        <213> Homo Sapiens

        <400> 298
aaagaatcgg atatgaaggt gccaactgta agtttgaaag tatctgaaag tgtaattgat    60
gtgaaaacaa ctatggaaag tatatctaat acgtctacgc agtctctcac agcagaaaca   120
aaggacatag ctttggaacc taaggaacaa aaacatgaag acaggcagag caatacacct   180
tctcctcctg ttagtacctt ttcatcaggt acttctacca ccagtgatat tgaagtttta   240
gatcatgaaa gtgtaataag tgagagctca gcgagctcga gacaagagac tacagattca   300
aaatcaagtc ttcacttgat gcagacatct tttcagcttc tctctgcatc tgcttgtcct   360
gaatataatc gtttagatga tttccaaaaa ctcactgaga gttgctgttc atctgatgct   420
tttgaaagaa tagactcatt tagtgtacag tcattagata gccggagtgt aagtgaaatc   480
aattcaagat gatgaattgt caggcaaggg gatatgcttt agtgcctatt ataagttaat   540
tcttcaactc caaaagtcta aaacagttga atctgccgaa ggaaaatctg aagaagtaaa   600
tgaaacatta agttatacca ctgaggaagc agaaatggga agaaaagtgg gcgaaagtgg   660
caactccccg gttaacngng aaaangcctg gatatcc                            697
```

```
        <210> 299
        <211> 510
        <212> DNA
        <213> Homo Sapiens

        <400> 299
aaanaatnaa ttatgttaan aactttatta ttttcnantc ctttaaang gntgtaaat     60
aatacttcnt ccaaatcntt taaatgttnt naangccntt gcnaaatcct tataaataaa   120
ttttcncct tatccaancn catcnanaaa acattgaata tgttcaggtt tcncnggann   180
ggtnccnaaa ggnnccncnt tttatacnga cttaattgtn aaagcngggt gaaataaatt   240
ttccnatcna aatttttttt aagtttaaat cnttcccncn ttaaatttcn nanagtgtcc   300
gtgtnactcc tacttttaaa ggaaaaaaat tantttaaaa tttaatancc cccgatttaa   360
```

```
taattttttta ctttaacncn taatgttcnt tttcctgaac nntaattaan aaatgttgaa    420
atttttaaatg tnaaanantc caantttccg tntgttaaca ttacncctcc aatgttcnta    480
atatatntnt taacccntnc caattatnga                                      510
```

        <210> 300
        <211> 625
        <212> DNA
        <213> Homo Sapiens

        <400> 300

```
attagatagc cggagtgtaa gtgaaatcaa ttcagatgat gaattgtcag gcaagggata     60
tgctttagtg cctattatag ttaattcttc aactccaaag tctaaaacag ttgaatctgc    120
tgaaggaaaa tctgaagaag taaatgaaac attagttata cccactgagg aagcagaaat    180
ggaagaaagt ggacgaagtg caactcctgt taactgtgaa cagcctgata tcttggtttc    240
ttctacacca ataaatgaag acagactgt gttagacaag gtggctganc agtgtgaacc    300
tgctgaaagt cagccanaan cactttctga caaggaanat gtttgcaata cagttgaatt    360
tctgaatgaa aaagcnggaa aaaagggang ctcagttatt atctcttagt aaggaaaaag    420
cacttctagg aagaagcttt ttgatacctg aananatgaa atgttcacag tngaaaggaa    480
naanngcagt ancatttccn tccttgaaan gattnngttt actcaaagga attngnnnaa    540
nccngtanta gaaaagtttc aaacctaagn ccggnaaaag aggaagagat gcctggccta    600
aaaaaaggga aatccacnga ccatt                                           625
```

        <210> 301
        <211> 792
        <212> DNA
        <213> Homo Sapiens

        <400> 301

```
aaaaantaaa ttatnttaaa aactttatta tttncnatnc attttatagg gtantaaaat     60
aatactnctn caaaatcatt taaatnttat tgatgccatt gcaaaatcat tataaataaa    120
tttnctccat tatccaatca catctaaata acattgaata tntacaggtt nctctggata    180
ggtaccaaaa ggtaccacnt tttatacaaa cttaattgtg aaanctgggt gaaataaatt    240
tncaaatcaa aatttttttt aantttaaat catncactct ttaaatttca aacagtgtca    300
gtgtgacnct tacttttaaa ggaaaaaaat tagtttaaaa tttaatancc acanatttaa    360
taattttta ctttaacact taatgtacat tttcatganc agtaattaaa atatnttgaa    420
attttaaatn tgaaaaattt caaagtttca gtatnttaac attacncttc aaatgttctt    480
aatatatata taaacactta caaattataa atacaactag ttgtntntct acaatacata    540
tntgaacacc attcttcttc tctagccatn tttatntgan gataaagtaa taaatctctg    600
tgctattcaa gggaaaaaaa atgaatgctt taaaaaataa atctttaaaa aataattcca    660
aaaataaagt tcaaatattg cacaaaaata atttaactgt aaatattact ncntagtgta    720
aacaatttta aaaaaatttt acactctaca ntaaatccnc ttctnattct ttaaaaaaat    780
tatgggaaat cc                                                         792
```

        <210> 302
        <211> 738
        <212> DNA
        <213> Homo Sapiens

        <400> 302

```
aaagagtaaa ttatgttaag aactttatta ttttcgattc attttatagg gtagtaaaat     60
aatacttctt caaaatcatt taaatgttat tgatgccatt gcaaaatcat tataaataaa    120
ttttctccat tatccaatca catctagata acattgaata tgtacaggtt tcnctggata    180
ggtaccaaaa ggtaccacat tttatacaga cttaattgtg aaagctgggt gaaataaatt    240
ttcagatcaa aattttttt aagtttaaat cattcactct ttaaatttca gacagtgtca    300
gtgtgactct tactttaaaa ggaaaaaaat tagtttaaaa tttaatagcc acagatttaa    360
```

                            -184-

```
taatttttta ctttaacact taatgtacat tttcatgagc agtaattaag atatgttgaa     420
attttaaatg tgaaagattt caaaggtttc agtatgttaa cattactctt caaatgttct     480
taatatatat ataaacactt acaaattata gatacaacta gttgtatatc tacaatacat     540
atatgaacac cattcttctt ccccnagcca tatttatatg agggataaag taataaatct     600
ctggtgctat tcaaggnaaa aaaatggaat gccttaaaaa aataaaatcc ttaaagaata     660
ggttcaaaaa ataaagttca aaatantngc ccaaaaataa attaacnngg taatattaac     720
tacataaggg taaaacaa                                                    738
```

```
        <210> 303
        <211> 635
        <212> DNA
        <213> Homo Sapiens

        <400> 303
gaacggccga gggtaacatc ccgggctcgc gggaggctgt cggggtaatg gccacacgct      60
gacagaacca gccgagtgga aaaggggagc gaagccgttc ctctgcaccc ttccccaggc     120
ctgaggcctt cccgcttggt gctgccgccg ccactgccgg ctgaggaggg gcgatgagtt     180
ggttcaacgc ctcccagctc tccagcttcg ctaagcaggc cctgtcccag gcccagaagt     240
ctattgacag ggttctggac atccaggaag aggagccgag catctgggcc gagaccattc     300
cgtatggaga gccgggaata agttcccctg tcagtggagg atgggatact tcaacctggg     360
ggttgaaatc aaacactgaa cctcagagtc caccaatagc ctctcctaaa gcaatcacaa     420
agccagttcn gaggactgtg gtcgatgaat ctgaaaattt cttcagtgcc tttctctcgc     480
caactgatgt ccagaccatt cagaagagtc cagtggtatc aaaacctcca ncataatcac     540
aacnaccang nagaangaan tgaaaancan cttacatgaa tccttgcaca ttggncaant     600
caagaaactt cctgaaacaa ctgaaatcac aaagt                                635
```

```
        <210> 304
        <211> 847
        <212> DNA
        <213> Homo Sapiens

        <400> 304
gagacggagt ctttctctgt cacccatgct ggagtgcagt ggcacaatct tggctcattg      60
taacctccac ctcccaggtt caagcaatgc tcctgcctca gcctcccgag tagctaggat     120
tacaggcgca caccaccacg ccaggctaat ttttgtattt ttagtagaga tggggtttca     180
ccaaactgct ggccatgctg gtcttgaact cctgacatca ggtgatatgc ccgccttggc     240
ctcccaaagt gctgggatta caggcatgag ccacagcacc tggccgtaaa tgagagtttt     300
tatgtgcaag taaaggcagt taaataactt tcagtaataa aatgcatcac aatatttcac     360
aggtttaaaa cacaacctgg ttaccttttt gaataaaata acatttggaa gaaggcatag     420
ctacttttaa aagctattct atgctttcct tgtgtttgaa atttcaagaa aaaataaaat     480
gataaatcac aaaattaaaa atgccaaatt caagttaatt cctataattc ttccattttg     540
ttatgaatat tctgtaatat caaacattca tttttaatgt gctaaaaata tgggtttaca     600
aaatatgaac aggtaatttt taaaagagta aattatgtta aagaacttta ataantttcg     660
attcatttta tagggtanta aaataatact tcttcaaaat caattaaatg ttattgaatg     720
ccatttgcaa aatcattata aataaatttt cncaattatc caatcacaat tctagataac     780
attgaataag tncaaggttt ccccgggata ngttccaaaa nggtnccaca attttatnca     840
gacctaa                                                               847
```

```
        <210> 305
        <211> 767
        <212> DNA
        <213> Homo Sapiens

        <400> 305
cccccttcgt ctcagctgtg cgggaacggc cgagggtaac atcccgggct cgcgggaggc      60
```

```
tgtcgggta  atggccacac  gctgacagaa  ccagccgagt  ggaaaagggg  agcgaagccg    120
ttcctctgca  cccttcccca  ggcctgaggc  cttcccgctt  ggtgctgccg  ccgccactgc    180
cggctgagga  ggggcgatga  gttggttcaa  cgcctcccag  ctctccagct  tcgctaagca    240
ggccctgtcc  caggcccaga  agtctattga  cagggttctg  gacatccagg  aagaggagcc    300
gagcatctgg  gccgagacca  ttccgtatgg  agagccggga  ataagttccc  ctgtcagtgg    360
aggatgggat  acttcaacct·ggggggttgaa  atcaaacact  gaacctcaga  gtccaccaat    420
agcctctcct  aaagcaatca  caaagccagt  tcggaggact  gtggtcgatg  aatctgaaaa    480
tttcttcagt  gcctttctct  cgccaactga  tgtccagacc  attcagaaga  gtccagtggt    540
atcaaaacct  ccaacaaaat  cacaacgacc  aagaaagaag  aagtgaaaag  caacttacat    600
gaatcccttg  cacattggcc  aatcaagaac  tcctgaaaca  actgaatcac  aagtaaaaag    660
actccctcct  tgtgtgtttc  aaggggaaaa  ctctgggcaa  caaggtactt  catcacctaa    720
aactgaaagg  naaacaacga  agaaaactgt  ttaatnaaag  aatccgg                  767
```

        <210> 306
        <211> 1659
        <212> DNA
        <213> Homo Sapiens

        <400> 306

```
ccccccttcgt  ctcagctgtg  cgggaacggc  cgagggtaac  atcccgggct  cgcgggaggc     60
tgtcgggta  atggccacac  gctgacagaa  ccagccgagt  ggaaaagggg  agcgaagccg    120
ttcctctgca  cccttcccca  ggcctgaggc  cttcccgctt  ggtgctgccg  ccgccactgc    180
cggctgagga  ggggcgatga  gttggttcaa  cgcctcccag  ctctccagct  tcgctaagca    240
ggccctgtcc  caggcccaga  agtctattga  cagggttctg  gacatccagg  aagaggagcc    300
gagcatctgg  gccgagacca  ttccgtatgg  agagccggga  ataagttccc  ctgtcagtgg    360
aggatgggat  acttcaacct  ggggggttgaa  atcaaacact  gaacctcaga  gtccaccaat    420
agcctctcct  aaagcaatca  caaagccagt  tcggaggact  gtggtcgatg  aatctgaaaa    480
tttcttcagt  gcctttctct  cgccaactga  tgtccagacc  attcagaaga  gtccagtggt    540
atcaaaacct  ccaacaaaat  cacaacgacc  aagaaagaag  aagtgaaaag  caacttacat    600
gaatcccttg  cacattggcc  aatcaagaac  tcctgaaaca  actgaatcac  aagtaaaaag    660
actccctcct  tgtgtgtttc  aaggggaaaa  ctctgggcaa  caaggtactt  catcacctaa    720
aactgaaagg  naaacaacga  agaaaactgt  ttaataaaga  atcggatatg  aaggtgccaa    780
ctgtaagttt  gaaagtatct  gaaagtgtaa  ttgatgtgaa  acaactatg  gaaagtatat    840
ctaatacgtc  tacgcagtct  ctcacagcag  aaacaaagga  catagctttg  gaacctaagg    900
aacaaaaaca  tgaagacagg  cagagcaata  caccttctcc  tcctgttagt  accttttcat    960
caggtacttc  taccaccagt  gatattgaag  ttttagatca  tgaaagtgta  ataagtgaga   1020
gctcagcgag  ctcgagacaa  gagactacag  attcaaaatc  aagtcttcac  ttgatgcaga   1080
catcttttca  gcttctctct  gcatctgctt  gtcctgaata  taatcgttta  gatgatttcc   1140
aaaaactcac  tgagagttgc  tgttcatctg  atgctttga  aagaatagac  tcatttagtg   1200
tacagtcatt  agatagccgg  agtgtaagtg  aaatcaattc  agatgatgaa  ttgtcaggca   1260
agggatatgc  tttagtgcct  attatagtta  attcttcaac  tccaaagtct  aaaacagttg   1320
aatctgctga  aggaaaatct  gaagaagtaa  atgaaacatt  agttataccc  actgaggaag   1380
cagaaatgga  agaaagtgga  cgaagtgcaa  ctcctgttaa  ctgtgaacag  cctgatatct   1440
tggtttcttc  tacaccaata  aatgaaggac  agactgtgtt  agacaaggtg  gctgancagt   1500
gtgaacctgc  tgaaagtcag  ccanaancac  tttctgacaa  ggaanatgtt  tgcaatacag   1560
ttgaatttct  gaatgaaaaa  gcnggaaaaa  agggangctc  agttattatc  tcttagtaag   1620
gaaaaagcac  ttctaggaag  aagctttttg  atacctgaa                           1659
```

        <210> 307
        <211> 831
        <212> DNA
        <213> Homo Sapiens

        <400> 307
```
ctaagcattc  catattggaa  gaagagattt  ctacacatga  aaaaaatgcc  tttgtttagt     60
```

```
aaatcacaca aaaatccagc agaaattgtg aaaatcctga aagacaattt ggccattttg      120
gaaaagcaag acaaaaagac agacaaggct tcagaagaag tgtctaaatc actgcaagca      180
atgaaagaaa ttctgtgtgg tacaaacgag aaagaacccc caacagaagc agtggctcag      240
ctagcacaag aactctacag cagtggcctg ctagtgacac tgatagctga cctgcagctg      300
atagactttg agggaaaaaa agatgtgacc cagatattta acaacatctt gagaagacag      360
ataggcactc ggagtcctac tgtggagtat attagtgctc atcctcatat cctgtttatg      420
ctcctcaaag atatgaagc cccacagatt gccttacgtt gtgggattat gctgagagaa       480
tgtattcgac atgaaccact tgccaaaatc atcctctttt ctaatcaatt cagagatttc      540
tttaagtacg tggagttgtc aacatttgat attgcttcag atgcctttgc tactttcaag      600
ggatttacta accagacata aagtgttggt agcaagactt cttagaacaa aattacgaca      660
ctanttttga agactatgag aaattgcttc agtctgagaa attatgttac caagagacag      720
tccttaaagc ctgctaaggg aactgattct ggaccgtcan aactttgcca tcaangcaaa      780
agtttatcaa caagccnggg gaaaccggaa acncaaggag gaacctcctt c              831
```

        <210> 308
        <211> 833
        <212> DNA
        <213> Homo Sapiens

        <400> 308

```
ccattcaaat gtttatactc catctaccca gaacaattac agcagaaaaa ataggcacct       60
ccaaagtctt cccaagaatg atgactttct gaaatgacac actgtacaaa ctggacaaat      120
gagacgactg actgtgacag gggccgggga gctcttcaag gggccgtttt cttcaagtct      180
cggatctgtt taatcaagta gttcttctcg tcagcgaact gctcatcatc cgtcctttct      240
ttttggaagc tgctcagaaa ctcaatgagt ttgggctgat tttttaacag gatctccaca      300
ataggctgtg ttttgtgagg actggccaca aacaccttaa aaacatgaaa ggcttcaaac      360
tggatgttgg gacttttatc ccgaaggagg ttcatcatga gtttcaggtt ctccggcttg      420
ctgatatact ttgtcatgat ggcaaagttg tgacggtcca ggatcagctc ccctagcagc      480
tttaaagact gtctcttagt aacataattc tcagactgaa gcaatttctc atagtcttca      540
aaaatagtgt cgtaatttg ttctaagaag tctgctacca acactttaag gtcnggttag       600
taaatccttg aaagtagcaa aggcatctga agcaatatca aatgttgaca actccacgtt      660
acttaaagaa atctctgaat tgattagaaa aagaggatga ntttgggcaa ntgggtcaag      720
tcgaatanat tcctctcaag cataaaccca caaacgttaa ggnaaaccgg tgggggcttc      780
aaaanccntt gagggagcat aaancangga tattagggat nagcacccaa ata             833
```

        <210> 309
        <211> 1320
        <212> DNA
        <213> Homo Sapiens

        <400> 309

```
gcatcaccac catccacgag gatgaggtgg ccaagaccca gaaggcagag ggaggtggcc       60
gcctgcaggc tctgcgttcc ctgtctggca ccccaaagtc catgacctcc ctatccccac      120
gttcctctct ctcctccccc tccccaccct gttccctct catggctgac cccctcctgg       180
ctggtgatgc cttcctcaac tccttggagt ttgaagaccc ggagctgagt gccactcttt      240
gtgaactgag ccttggtaac agcgcccagg aaagataccg gctggaggaa ccaggaacgg      300
agggcaagca gctgggccaa gctgtgaata cggcccaggg gtgtggcctg aaagtggcct      360
gtgtctcagc cgccgtatcg gacgagtcag tggctggaga cagtggtgtg tacgaggctt      420
ccgtgcagag actgggtgct tcagaagctg ctgcatttga cagtgacgaa tcggaagcag      480
tgggtgcgac ccgaattcag attgccctga agtatgatga gaagaataag caatttgcaa      540
tattaatcat ccagctgagt aacctttctg ctctgttgca gcaacaagac cagaaagtga      600
atatccgcgt ggctgtcctt ccttgctctg aaagcacaac ctgcctgttc cggacccggc      660
ctctggacgc ctcaagacac tctagtgttc aatgaggtgt tctgggtatc catgtcctat      720
ccaagccctt caccaagaag accttaagag tcgatgtctg taccaccgac aggagccatc      780
tgggaaaagt gcctgggagg cgcccaaatn agcctggcgg aggtctgccg gtctgggg       840
```

```
aaagtcgact cgcttggtac aactttctca gntacaaaat acttgaagaa acagagcagg        900
gagctcaagc cagtgggagt catggccctt gcttcagggc ntgccagcac ggacgctgtg        960
tcttgctctg ttggaacaga cagcagtgga gttggagaag aggcaggagg gcaggagcag       1020
cacacagaca ctggaagaca gctggtgagt gagcccgccc ttgggcccca ggagctgccc       1080
tgcctggacc taggcccagc aatgagatcc cccaatgcca gtgcaactaa gagaagggtt       1140
ccactgggaa ggctgagaac ccctctcctc atgggttctc tacaggcaaa aaggcaatgt       1200
aacctagtac gatggttccc agaattcctt tcgaatttgc catttcgttt cccatgaatc       1260
acctatgcta gttcacacct aatgttattc tttatcttga tatagtgaca tttattttgc       1320
```

        <210> 310
        <211> 1030
        <212> DNA
        <213> Homo Sapiens

        <400> 310

```
aacatttctg tgatcaacat tgcttactgc gtttctactg tcaacaaaat gagcccaaca         60
tgacaactca gaaaggacct gaaaacttac attatgatca gggttgtcag acatctcgaa        120
ccaaaatgac aggttcagca ccaccccctt ctccaacacc taacaaagag atgaagaaca        180
aagcagttct ttgcaaacct ttaacaatga caaaagctac ttactgtaaa cctcacatgc        240
agaccaaatc ttgtcagaca gatgatactg ggaggacaga atatgttcca gtgcctatcc        300
ctgtgcctgt gtatatccca gttcctatgc acatgtacag tcagaatatt cctgttccta        360
ctacagttcc tgttcctgtg ccagttcctg tttttctgcc tgctccattg gacagcagtg        420
agaagattcc tgcagcaatt gaggagctaa aaagcaaggt ttcttcagat gctcttgata        480
cagagttgct tacaatgacg gatatgatga gtgaagacga ggggaaaaca gagacaacca        540
acatcaacag tgtaattatt gaaacagata taattggttc agaccttttg aagaactctg        600
acccagagac acagtccagc atgcctgatg taccatatga accaagattt ggatatcgaa        660
atagattttc ccagagctgc tgaggagctt gatatggaaa atgaattttt attaccacct        720
gtttttggcg aagaatatga ggaacagccc aagacctcga tctaaaaaaa aagggagcca        780
agagaaangc tgtatcaagg ataccaagtc tcatgatgat aagtctgaca atttcagaat        840
gcagcnttcc tttcaaatta tacgtatggg cgtaaatgca tgggnaacac cgggtcaaaa        900
actaagnnac ttggatgaaa gatcntccgg gnaattagaa tgagttaaaa tccttccaaa        960
tccantnaag tttaaaagag ggtntaatcc cctcaaaacc anagctgggng ccttaacaag       1020
ggggttaacc                                                             1030
```

        <210> 311
        <211> 546
        <212> DNA
        <213> Homo Sapiens

        <400> 311

```
gtttctgttt tcagaagaat tgggaaaact tctgtgaaag aagaatgcag aaacaaagaa         60
atatgaagtc ttgggagtat actgattaaa aagcacacat tgggagtgat agtaagaaga        120
gctaaaataa aaagcacaga aggaaaaaat aattgatttg tacataagct aaattataat        180
tcctttaaaa ttgtttataa caagatggaa tacagaatga cgattagatt tataacgtgt        240
gtttatatga atatgttgtt aacagtgaga tttctgatat ggtataacaa agtatatgat        300
tggaggacct gcaaaatgta tactcggtt gttttctctt ttaaaaatat tgtnaaacag         360
gcaagtgagg cttaacagca ttatggttca ttacngggtt tgggntatat accttttttca       420
gcttctgtna tgagcaagtt gtgtttcaa tccccacttt caatgtctat gggaagggcg         480
cnttttgctn tgttttgttt tgtctttaaa ncnttttnaa acngggggaca canatggang       540
ccggcc                                                                 546
```

        <210> 312
        <211> 518
        <212> DNA
        <213> Homo Sapiens

<400> 312

```
aaaattatta ntntaaaagg ggaaataggt nggattnccn tnttnagggc aataattntg        60
gggaggaatg gggtgggggct naccctgna acccatnata aacctattct nctnagggtg      120
ctgggaaana attggggtct ggaataaanc tncaaatggg tcnccngctt cactaaaacc      180
ttggcaacta aggctcattt ttccaaaggg gttnctnang tcnnctccct ntnaaatcnt      240
tttattatnc cagggtggct gttgctaang cttnggtggg aaancangaa nttnctgctn      300
ctnctgctgc tgttgctgct gggcantnca agggaaaacc ccccgacaa actgggataa       360
ngtgacctgn ttgcncacnt ctngggccct attnccntac ctgncctgna aatncttccc      420
nctctgcccc ctttactnnt gccaannctt tcccccccgg ttaggataaa aattcccctn      480
aacctccnac ctttggttan cgggggtccc ctnccccc                              518
```

<210> 313
<211> 660
<212> DNA
<213> Homo Sapiens

<400> 313

```
gccaagctgt gaatacggcc caggggtgtg gcctgaaagt ggcctgtgtc tcagccgccg       60
tatcggacga gtcagtggct ggagacagtg gtgtgtacga ggcttccgtg cagagactgg      120
gtgcttcaga agctgctgca tttgacagtg acgaatcgga agcagtgggt gcgacccgaa      180
ttcagattgc cctgaagtat gatgagaaga ataagcaatt tgcaatatta atcatccagc      240
tgagtaacct ttctgctctg ttgcagcaac aagaccagaa agtgaatatc cgcgtggctg      300
tccttccttg ctctgaaagc acaacctgcc tgttccggac ccggcctctg gacgcctcaa      360
gacactctag tgttcaatga ggtgttctgg gtatccatgt cctatccaag cccttcacca      420
agaagacctt aagagtcgat gtctgtacca ccgacaggag ccatctggga aaagtgcctg      480
ggaggcgccc aaatnagcct ggcggaggtc tgccggtctg ggggaaaagt cgactcgctn      540
gtacaacctt ctcagctaca aatacttgaa gaaacaagac aangggactc aagccantgg      600
gagtcatggg ccctggcctc angggctgcc aacaacgggc cccgtgttct ggccccgttt      660
```

<210> 314
<211> 516
<212> DNA
<213> Homo Sapiens

<400> 314

```
gaaaggccac tttattgatg gagataaaac tgaatggagt tccccacagc cctcccctca       60
ctcatgttag tggcttnact gggcatctga gaccagcgtg gcctgtcacc cacatanact      120
aggctgctta gcccacccag cctatcacac tgcccgctcc acgttgggca gccacataaa      180
aacacgtcac agctcaanaa natccgtgga tgcacctctg aatcccccc aatggtttct       240
gtgcattttt ttaatattgt acaaaatatg ttaactagga aaaattagct gtactgtgac      300
aagtgcggga cgtcctatta ggattaccgt cccccaggca ttacttctta ttgcagtaag      360
acctctaaaa ggtgagctg tncaaaccaa aaaaaatcta aacgatttta agaanagcag       420
caactcaata ctgctttagt tcatttaaat tttctttccc aaaaatacac tcctaaatat      480
acaaactata caatcttatt attttaatgc tggttt                                516
```

<210> 315
<211> 677
<212> DNA
<213> Homo Sapiens

<400> 315

```
tcagaatggc agattcagga gagagtttgt gccagaatag cattgaagaa cttgatggtg       60
tccttacatc catattcaaa catgagatac catattatga gttccagtct cttcaaactg      120
aaatttgttc tcaaaacaaa tatactcatt tcaaagaact tccaactctt ctccactgtg      180
cagcaaaatt tggcttaaag aacctggcta ttcatttgct tcaatgttca ggagcaacct      240
```

-189-

```
gggcatctaa gatgaaaaat atggaggggtt cagaccccac acatattgct gaaaggcatg      300
gtcacaaaga actcaagaaa atcttcgaag acttttcaat ccaagaaatt gacataaata      360
atgagcaaga aaatgattat gaagaggata ttgcctcatt ttccacatat attccttcca      420
cacagaaccc agcatttcat catgaaagca ggaagacata cgggcaagag tgcaaatgga      480
gctgaggcaa atgaaatgga aggggaaggn aaacagaatg ggntcaggca tggagaccaa      540
acacagccca ctaagaggtt ggcagtgaga gttctgaaag accagtatga tgacttgtan      600
gtgttcaatc cctgggngct gattcaagaa aaataattcc acaagggtgc tattcntngt      660
ttttacaaga cntcctt                                                     677
```

```
        <210> 316
        <211> 843
        <212> DNA
        <213> Homo Sapiens

        <400> 316
agctttaaac attcaattta tttgtggcat ttgtacatga aaattatatg acgataacat       60
tgctttctat tctaagctag taaattgttt ctaagaaata atagattgat aaaattgcaa      120
gtcttaatac aaaggtaggt tatgaaaatg tatattaatt tgagatatag aaaagttttc      180
aaataataat gttttcaggg ttatatgcaa atagacacta ataagacaa ggtttctgca       240
aacatgatgt aacaataatg actggaactc tgaatgtgag aaattcagaa aatgaaccag      300
ctacttaaaa agcaaaaatg tgctaagtaa atttgtattt tcatggttat tctaaggaga      360
ggaggaataa tctgttgagg ttagtgccct caagcagacc ccataacttt gctacaccgc      420
atttaacttc tctgtgctgt tttcttttaa ttttcaaaat ggaaattagc tgtttcattg      480
gtgaagtgca ttgtaaaatg agagaatttt caaataatgc aattactcta tggtattctg      540
ttttaatagt aatataccca tatgaagcag gtataatgag aataaattt gccaataaca        600
aattctgaaa tctgaanttt gtttctgctg tcatagtatg aattcgcttt aaaganaanca      660
ggcaatccaa attcaacttg ctcacctgaa aacaaaatgt ccgtanatcg tgagttcata      720
taataacctc cttaatgatc ttcctgcaca naaaccaaat tcttttcaac ttggggtcaa      780
caagaaccta ttgctgaatt ttcatataaa actatttcct gttggcagtt tcctacccc        840
gga                                                                    843
```

```
        <210> 317
        <211> 835
        <212> DNA
        <213> Homo Sapiens

        <400> 317
acaagacacg cctgcgtagt ggtagtgccc tcctgcagtc ccagtctagt actgaggacc       60
cgaaggatga gcctgcggag ctaaaaccag attctgagga cttatcctcc cagtcctcag      120
cttcaaaggc atctcaggag gatgccaatg aaatcaagtc taaacgggat gaagaagaac      180
gagaacgaga aaggagggag aaggagaggg aacgagaaag agaacgggag aaggagaagg      240
agagagaacg agagaagcag aagctaaaag agtcagaaaa agagagagat tctgctaagg      300
ataaagagaa aggcaaacat gatgatggac ggaaaaagga agcagaaatt atcaaacaat      360
tgaagattga actcaagaag gcacaggaga gccaaaagga gatgaaacta ttgctggata      420
tgtaccgttc tgccccaaag gaacagagag acaaagttca gctgatggca gctgagaaga      480
agtctaaggc agagttggaa gatctaaggc aaagactcaa ggatctggaa gataaagaga      540
agaaagagaa caaagaaaat ggctgatgaa ggatgccttg aggaagatcc gggcagtgga      600
gggacaagat agaataccta cagaagaagc taagccatgg gcaagcagga agaagaagca      660
ctcctctctg aaatgggatg tcacaaggcc aagcctttga agacatgcag gagcaaaaat      720
atccgntttg attgcagcaa nttgccggga anaanggatg atgccaaatt ttcaaagccc      780
aatgtcaaaa gccgttttca agttccaaat ccagnttcat naagnttgcc ttaaa            835
```

```
        <210> 318
        <211> 582
        <212> DNA
```

```
        <213> Homo Sapiens

        <400> 318
caaactgaat cctgctttaa ttcaagcttg nggagaacaa agtcctacag aaacattcca        60
nanaattttc nggaaaagag ggatcacaac aaccctgtaa aaaggagact ganagtaatt       120
canagctcac caagttcncn ccgtatcaaa tttccanaat acccacaaga tttcttcacc       180
anctcantcc tgactcaacc tcttcaatct ttanttcatt agaagacaaa gggtcanatt       240
atttaaaatt antcnantcc caagaaattt aaagacttga agtagtagag cattcaaaac       300
ttaaataact ttaacaagaa agccanctga tcttaacaag ttacncngcn antaaatggg       360
aaatagactg aatcanccta nacataattt cattagggnt gcaaaccacc canggggaaag      420
tagcacaatt ataccanttt gtaatccaca ttcacaagaa gtttgcnaca caaatgaaga       480
aaactttgng cccatagaca acttattttt taaaatatca ctccccaaaa gtagccatgt       540
ttccactttt ggtccccttt ccanatcaaa aataccaact tg                         582

        <210> 319
        <211> 827
        <212> DNA
        <213> Homo Sapiens

        <400> 319
gaagccattc gatgttcatc agattggcca tttcagccat accttgtgtt tgatgttgga        60
gatggttcag aaagacggga taatgactca tatataaatg ttcaagaaat aaaactggtg       120
atggaaataa ttaagcttat taaagacaaa agaaaggatg ttagtttcg aaacattggc        180
ataataactc attacaaggc ccagaagacg atgattcaga aggatttgga caaagagttc       240
gatagaaaag gaccagcaga agtagacact gtggatgcat tccagggtcg gcagaaggat       300
tgtgttattg ttacgtgtgt cagagcaaat agcatccaag gttcaattgg attcctggca       360
agtttgcaga gattgaatgt caccatcaca cgagccaagt acagcctctt catcctcgga       420
catttgagga ccctgatgga aaaccagcat tggaatcagc tgattcagga tgctcagaag       480
cgtggtgcca ttattaagac ctgtgacaaa aactatagac atgatgcagt gaagattctg       540
aaactcaagc ctgtgctgca gagaagtctc actcancctc ctaccatagc cccaaagggg       600
tccaaacccc aagggtggnt tgcccaagca ncaagctaga cagttggatt ttgccaaaga       660
caatcctggt tgccggcttc tccaatacca aaacaaccct ccggactccc aagggaaaat       720
tacncctaac ggtttacctt caaagggacc ctgaaaagac ccncctggtt caatgaccaa       780
cnttcanggg ncccacgaan tggctgaaaa agggatgggc aatttag                    827

        <210> 320
        <211> 598
        <212> DNA
        <213> Homo Sapiens

        <400> 320
aaattttaaa aggatttgt tatttgctat acaaatatac atttcaactt ttacaacatt        60
cactccagtc tgacctcctt gtctatagaa gactaagaga tcaacatttc cagtctctga       120
cttcaaggac attattacgg atacacaatg ccctctgaaa gcttttgcaa atgacagaaa       180
atactgaaga tgaccagagg ctcaggtgtt aaggatgcat tttccatgtt ttccaacagc       240
acacaaactc cttacaaaaa acaagcttat ctagatggtc ccacgagctg gtcatcttca       300
gtttacaata tgctgtggct gctggcccat gtcactgggc tttcctataa aagctttctt       360
ttcttgggaa ctgctgtcct cctgctccaa gtgtcctctt gtcccaccta gagttcctcc       420
tggtgtgatg ggtctcggaa ccacacttct cctgctcccc ttcactgaaa gccctggcct       480
ctctcctgtg acagagctcc tcttccgggt catcacattt gctctgacac gtgggnagcc       540
tcggggaact gggcanctgg gaggntccgt tttttttgg gaaggtttgt tggctgcc         598

        <210> 321
        <211> 808
        <212> DNA
```

<213> Homo Sapiens

<400> 321

```
gcatcaccac catccacgag gatgaggtgg ccaagaccca gaaggcagag ggaggtggcc      60
gcctgcaggc tctgcgttcc ctgtctggca ccccaaagtc catgacctcc ctatccccac     120
gttcctctct ctcctccccc tccccaccct gttcccctct catggctgac ccctcctgg      180
ctggtgatgc cttcctcaac tccttggagt ttgaagaccc ggagctgagt gccactcttt     240
gtgaactgag ccttggtaac agcgcccagg aaagataccg gctggaggaa ccaggaacgg     300
agggcaagca gctgggccaa gctgtgaata cggcccaggg gtgtggcctg aaagtggcct     360
gtgtctcagc cgccgtatcg gacgagtcag tggctggaga cagtggtgtg tacgaggctt     420
ccgtgcagag actgggtgct tcagaagctg ctgcatttga cagtgacgaa tcggaagcag     480
tgggtgcgac ccgaattcag attgccctga gtatgatga gaagaataag caatttgcaa       540
tattaatcat ccagctgagt aacctttctg ctctgttgca ncaacaaaga ccagaaagtg     600
aatatccgcg tggctgtcct tccttgctct gaaaagcaca aactgcctgt tccgggaccc     660
gggctctgga cgcctcaaac actccaagtg ttcaatgaag gtgttctggg tatccatggt     720
ccctatccaa accnttaac aagaaagacc tttaaanaag tccaatgtcc ngtnaccaac       780
cggacaaggg agccaatctt gggaaaaa                                          808
```

<210> 322
<211> 629
<212> DNA
<213> Homo Sapiens

<400> 322

```
agcaaaataa atgtcactat atcaagataa agaataacat taggtgtgaa ctagcatagg      60
tgattcatgg gaaacgaaat ggcaaattcg aaaggaattc tgggaaccat cgtactaggt     120
tacattgcct ttttgcctgt agagaaccca tgaggagagg ggttctcagc cttcccagtg     180
gaacccttct cttagttgca ctggcattgg gggatctcat tgctgggcct aggtccaggc     240
agggcagctc ctggggccca agggcgggct cactcaccag ctgtcttcca gtgtctgtgt     300
gctgctcctg ccctcctgcc tcttctccaa ctccactgct gtctgttcca acagagcaag     360
acacagcgtc cgtgctggca ngccctgaag caagggccat gactcccact ggcttgagct     420
ccctgctctg tttcttcaag tattttgtan ctgagaaagt tgtaccaanc gaatcnacct     480
ctccccaaga ccgggaagac ctcccgccaa ggctgatttg gggcgcctcc caagcactct     540
tccaaaatgg ctcccgtccg ttgggacana catccnactt tttaangcct tccggggnaa     600
agggctgggn taaggacatt gggtncccc                                        629
```

<210> 323
<211> 798
<212> DNA
<213> Homo Sapiens

<400> 323

```
aacatttctg tgatcaacat tgcttactgc gtttctactg tcaacaaaat gagcccaaca      60
tgacaactca gaaaggacct gaaaacttac attatgatca gggttgtcag acatctcgaa     120
ccaaaatgac aggttcagca ccacccctt ctccaacacc taacaaagag atgaagaaca       180
aagcagttct ttgcaaacct ttaacaatga caaaagctac ttactgtaaa cctcacatgc     240
agaccaaatc ttgtcagaca gatgatactt ggaggacaga atatgttcca gtgcctatcc     300
ctgtgcctgt gtatatccca gttcctatgc acatgtacag tcagaatatt cctgttccta     360
ctacagttcc tgttcctgtg ccagttcctg tttttctgcc tgctccattg gacagcagtg     420
agaagattcc tgcagcaatt gaggagctaa aaagcaaggt ttcttcagat gctcttgata     480
cagagttgct tacaatgacg gatatgatga gtgaagacga ggggaaaaca gagacaacca     540
acatcaacag tgtaattatt gaaacagata taattggttc agaccttttg aagaactctg     600
acccagagac acagtccagc atgcctgatg taccatatga accagatttg gatatcgaan     660
tagatttcc cagagctgct gaaggagcct tgatatggga aaatgaattt ttattaccaa     720
ccngttttg ggcgaaagaa tatgaaggaa caagcccaaa cctcgattct aaaaaaaagg     780
```

```
ggagccaagg agaaaagg                                                    798
```

```
        <210> 324
        <211> 754
        <212> DNA
        <213> Homo Sapiens

        <400> 324
aaaaggacac taaggtttta ataaggggaa caaaaaattg ttttcaccag catagattca      60
cattacagta caccaatatt gacagcattc tcttgtctat ttttggtaca gaagatggta     120
tctctctaca taaccttgta aggcttcagt aactaaaatg taaaaccaaa caaaacaaaa     180
ccccaaaaca aaacaaaaac cccagcctat tagtttacag tttatttaa aaattccgaa      240
agacactgca agttctaaac ttttagtagt gctacccata cacaaccatc tggttaagaa     300
cccagtaaaa gagccccctt ccaaggaagc tttgcaacag tagagttgtg caatatggat     360
gtttcttact acaagaaaaa aattatacat ggcacattct cattcatatt ctgtaatgta     420
aaaagttaca aacataccta atcaaataaa taataataaa aaaagaattt gaatgtattt     480
gttaagtatc ctaaaaccac tacatagaat aatggcaact ttcactcaca gattatttac     540
atggtaatac ccagcgtggg tacactgcta caaaactcaa aacagaagga gtaaacttga     600
aatgttttcc ataataaaga tctagcanca tgactatcct aatgccgttt tatcccgaat     660
gcttctggca acgttccctt ttaatccggt gtctcatcca attcaaaaan tggcctttac     720
caaaaaatat ccttttacaa gaaagaaacc cgtt                                 754
```

```
        <210> 325
        <211> 854
        <212> DNA
        <213> Homo Sapiens

        <400> 325
ggtcaggggt gagagctgga atctctgcac gggccttgga aaacgactgt cttcttctgc      60
caaaatgtca ggaattggaa ataaaagagc agctggagaa cctggcacct ccatgcctcc     120
tgagaagaag gcagctgttg aagattcagg gaccacagtg gaaacaatta agctaggagg     180
tgtctcttca acggaggaac tagacattag aacactgcaa accaaaaatc gcaagctggc     240
agaaatgttg gatcagcggc aggccattga agatgaactt cgtgagcaca ttgaaaaact     300
ggaacgacga caggccactg atgatgcctc actattgatt gtcaaccgat actggagtca     360
gtttgatgaa aacatccgta tcatccttaa acgttatgat ctggagcagg gcttgggaga     420
cctactcaca gaacgaaaag cccttgttgt gcctgaacca gaaccagact ctgatagcaa     480
tcaggagcgt aaagatgacc gagagagagc agttccagtg aagagatgga gtctcagctg     540
caggaacgtg tggagtcttc ccgccgagcc gtgtcccaga ttgtgactgt ttatgataaa     600
ttgcaagaaa aagtggagct cttatcccgg gaagctaaac agtgggagat aatctgatag     660
tggagggaag canttgcaag gagctgaact ctttcctcgc acaaggagaa tattaaggct     720
acanggaatt gacaagatct tcctcaggaa aaagcatcgc aaccatggtc tcaaggngtt     780
cctccaaagt tgcaagaggt aaaattgggg naaaagccga attcaccaan tttccggtcc     840
tggaagtcca anga                                                       854
```

```
        <210> 326
        <211> 760
        <212> DNA
        <213> Homo Sapiens

        <400> 326
caaactgaat cctgctttaa ttcaagcttg tggagaacaa agtcctacag aaacattcca      60
cagaattttc tggaaaagag ggatcacaac aaccctgtaa aaaggagact gagagtaatt     120
catagctcac caagttctct ccgtatcaaa tttccagaat acccacaaga tttcttcacc     180
agctcagtcc tgactcaacc tcttcaatct ttatttcatt agaagacaaa gggtcatatt     240
atttaaaatt attctagtct caagaaattt aaagacttga agtagtagag cattcaaaac     300
```

```
ttaaataact ttaacaagaa agccagctga tcttaacaag ttactctgct agtaaatggg      360
aaatagactg aatcatccta gacataattt cattagggct gcaaaccacc caggggagag      420
tagcacaatt ataccatttt gtaatccaca ttcacaagaa gtttgctaca caaatgaaga      480
aaactttgtg cccatagaca acttattttt taaaatatca ctccccaaaa gtagccatgt      540
ttccactttt gttcccttt  ccacatcaaa aataccaact tgatttcttc aggaggaatg      600
gacaatccaa gtttatacaa gtgggctggg aaaaagaaaa cactgaaaag tctaaaagca      660
caagataaac aaagcctggg aagggaagac agttaagagt tatttgtttc caantcaatc      720
cnaaaaccca anggcttgta attaacaagt cctttccggc                           760
```

        <210> 327
        <211> 852
        <212> DNA
        <213> Homo Sapiens

        <400> 327
```
caaagcagtt ctttgcaaac ctttaacaat gacaaaagct acttactgta aacctcacat       60
gcagaccaaa tcttgtcaga cagatgatac ttggaggaca gaatatgttc cagtgcctat      120
ccctgtgcct gtgtatatcc cagttcctat gcacatgtac agtcagaata ttcctgttcc      180
tactacagtt cctgttcctg tgccagttcc tgttttttctg cctgctccat tggacagcag      240
tgagaagatt cctgcagcaa ttgaggagct aaaaagcaag gtttcttcag atgctcttga      300
tacagagttg cttacaatga cggatatgat gagtgaagac gaggggaaaa cagagacaac      360
caacatcaac agtgtaatta ttgaaacaga tataattggt tcagaccttt tgaagaactc      420
tgacccagag acacagtcca gcatgcctga tgtaccatat gaaccaagat ttggatatcg      480
aaatagattt tcccagagct gctgaggagc ttgatatgga aatgaatttt ttattaccac      540
ctgttttttgg cgaagaatat gaggaacagc ccaagacctc gatctaaaaa aaaagggagc      600
caagagaaan gctgtatcaa ggataccaag tctcatgatg ataagtctga caatttcaga      660
atgcagcntt cctttcaaat tatacgtatg ggcgtaaatg catgggnaac accgggtcaa      720
aaactaagnn acttggatga aagatcntcc gggnaattag aatgagttaa aatccttcca      780
aatccantna agtttaaaag agggtntaat ccctcaaaa  ccanagctgg ngccttaaca      840
aggggttaa cc                                                          852
```

        <210> 328
        <211> 799
        <212> DNA
        <213> Homo Sapiens

        <400> 328
```
aaaaggacac taaggtttta ataaggggaa caaaaaattg ttttcaccag catagattca       60
cattacagta caccaatatt gacagcattc tcttgtctat ttttggtaca gaagatggta      120
tctctctaca taaccttgta aggcttcagt aactaaaatg taaaaccaaa caaaacaaaa      180
ccccaaaaca aaacaaaaac cccagcctat tagtttacag tttattttaa aaattccgaa      240
agacactgca agttctaaac ttttagtagt gctacccata cacaaccatc tggttaagaa      300
cccagtaaaa gagccccctt ccaaggaagc tttgcaacag tagagttgtg caatatggat      360
gtttcttact acaagaaaaa aattatacat ggcacattct cattcatatt ctgtaatgta      420
aaaagttaca aacatatccta atcaaataaa taataataaa aaaagaattt gaatgtattt      480
gttaagtatc ctaaaaccac tacatagaat aatggcaact ttcactcaca gattatttac      540
atggtaatac ccagcgtggg tacactgcta caaaactcaa aacagaanga gtaaacttga      600
aatgttttcc ataataaaga tctagcaaca tgactatcca atgctgtttt atcccgattg      660
cttctgcaac gttccttta  atccgtgtct catccagttc anaantgtcc ttatcaanaa      720
taacctttac tagaagaaac cgtncaagca tattttcaan gggtttccgg tccaattgaa      780
gttanacgtn taccaaaca                                                  799
```

        <210> 329
        <211> 978
        <212> DNA

<213> Homo Sapiens

<400> 329
```
ggaagatggc ggcggccgtt ccacagcggg cgtggaccgt ggagcagctg cgcagtgagc     60
agctgcccaa gaaggacatt atcaagtttc tgcaggaaca cggttcanat tcgtttcttg    120
cagaacataa attattagga aacattaaaa atgtggccaa gacagctaac aaggaccact    180
tggttacagc ctataaccat cttttttgaaa actaagcgtt ttaagggtac tgaaagtata    240
agtaaagtgt ctgagcaagt aaaaaatgtg aagcttaaat gaagataaac ccaaagaaac    300
caagtctgaa gagaccctgg atgagggtcc cccaaaatat actaaatcct gttctgaaaa    360
agggagataa aaccaacttt cccaaaaagg gagatgttgt tcactgctgg tatacaggaa    420
cactacaaga tgggactgtt tttgatacta atattcaaac aagtgcaaag aagaagaaaa    480
atgccaagcc tttaagtttt aaggtcggag taggcaaagt tatcagagga tgggatgaag    540
ctctcttgac tatgagtaaa ggagaaaagg ctcgactgga gattgaacca gaatgggctt    600
acggaaagaa aggacagcct gatgccaaaa ttccnccaaa tgcaaaactc acttttgaag    660
tggaattagt ggatattgat tgaaatagca gtgcttcagc tctaaggata ttagcaacaa    720
tgataaaact tggccttgaa gaaatttacn caactagtta gaacttgtta ctattgtaaa    780
ggaagagtca actggaaaat tcaaggagtt aataaaattt gtttacttgg tcccagcttt    840
tgagagataa atcccttatg aatccctggt ctaaaatact ttcctacagc tgtgtaaaat    900
actggtcaag gagaactttt tccttttacc tcatgttgta aacttaagtg gctcaataaa    960
aattgatccn ctgtcttg                                                  978
```

<210> 330
<211> 1017
<212> DNA
<213> Homo Sapiens

<400> 330
```
cgatcggcgg agctcccacc tccgcttaca gctcgctgcc gccgtcctgc cccgcgcccc     60
caggagacct ggaccagacc acgatgtgga aacgctggct cgcgctcgcg ctcgcgctgg    120
tggcggtcgc ctgggtccgc gccgaggaag agctaaggag caaatccaag atctgtgcca    180
atgtgttttg tggagccggc cgggaatgtg cagtcacaga gaaaggggaa cccacctgtc    240
tctgcattga gcaatgcaaa cctcacaaga ggcctgtgtg tggcagtaat ggcaagacct    300
acctcaacca ctgtgaactg catcgagatg cctgcctcac tggatccaaa atccaggttg    360
attacgatgg acactgcaaa gagaagaaat ccgtaagtcc atctgccagc ccagttgttt    420
gctatcagtc caaccgtgat gagctccgac gtcgcatcat ccagtggctg gaagctgaga    480
tcattccaga tggctggttc tctaaaggca gcaactacag tgaaatccta gacaagtatt    540
ttaagaactt tgataatggt gattctcgcc tggactccag tgaattcctg aagtttgtgg    600
aacagaatga aactgccatc aatattacaa cgtatccaga ccaggagaac aacaagttgc    660
ttaggggact ctgtgttgat gctctcattg aactgtctga tgaaaatgct gattggaaac    720
tcagcttcca agagtttctc aagtgcctca acccatcttt caaccctcct gagaagaagt    780
gtgccctgga ggatgaaacg tatgcagatg gagctgagac cgangtggac tgtaacccgc    840
tgtgtctgtg cctgtggaaa ttgggtctgt cagccatgac ctgtgacnga aagaatcaga    900
aggggcccca gacccagacn gaggangaga tgancngata tgtccaggag ctccaaagct    960
taggaaacag cttgaaaaga nccagagagg gagcccccaa agagattatg aggaggc      1017
```

<210> 331
<211> 799
<212> DNA
<213> Homo Sapiens

<400> 331
```
cccagaaaga tcatcacagt ttctgtaaaa gaagatgtac acctgaaaaa ggcagaaaat     60
gcctggaagc caagccaaaa acgagacagc caagccgatg atcccgaaaa cattaaaacc    120
caggagcttt ttagaaaagt tcgaagtatc ttaaataaat tgacaccaca gatgttcaat    180
caactgatga agcaagtgtc aggacttact gttgacacag aggagcggct gaaaggagtt    240
```

```
attgacctgg tctttgagaa ggctattgat gaacccagtt tctctgtggc ttacgcaaac      300
atgtgtcgat gtctagtaac gctgaaagta cccatggcag acaagcctgg taacacagtg      360
aatttccgga agctgctact gaaccgttgc cagaaggagt ttgaaaaaga taaagcagat      420
gatgatgtct ttgagaagaa gcagaaagaa cttgaggctg ccagtgctcc agaggagagg      480
acaaggcttc atgatgaact ggaagaagcc aaggacaaag cccggcggag atccattggc      540
aacatcaagt ttattggaga actctttaaa ctcaaaatgc tgactgaagc catcatgcat      600
gactgtgtgg tgaagctgct aaagaaccat gatgaagaat ccctggagtg cctgtgtcgc      660
ctgctcacca ccattggcaa agacttggac tttgaaaaaa gccaaagcca cgtatggacc      720
cagtacttta atcagatgga gaaaattgtg aaaggaaaga aaaacctcat ctaggatcgg      780
gtcatgcttt caggaggtt                                                   799
```

```
        <210> 332
        <211> 881
        <212> DNA
        <213> Homo Sapiens

        <400> 332
cgatcggcgg agctcccacc tccgcttaca gctcgctgcc gccgtcctgc cccgcgcccc       60
caggagacct ggaccagacc acgatgtgga aacgctggct cgcgctcgcg ctcgcgctgg      120
tggcggtcgc ctgggtccgc gccgaggaag agctaaggag caaatccaag atctgtgcca      180
atgtgttttg tggagccggc cgggaatgtg cagtcacaga gaaagggga cccacctgtc       240
tctgcattga gcaatgcaaa cctcacaaga ggcctgtgtg tggcagtaat ggcaagacct      300
acctcaacca ctgtgaactg catcgagatg cctgcctcac tggatccaaa atccaggttg      360
attacgatgg acactgcaaa gagaagaaat ccgtaagtcc atctgccagc ccagttgttt      420
gctatcagtc caaccgtgat gagctccgac gtcgcatcat ccagtggctg gaagctgaga      480
tcattccaga tggctggttc tctaaaggca gcaactacag tgaaatccta gacaagtatt      540
ttaagaactt tgataatggt gattctcgcc tggactccag tgaattcctg aagtttgtgg      600
aacagaatga aactgccatc aatattacaa cgtatccaga ccaggagaac aacaagttgc      660
ttaagggact ctgtgttgat gctctcattg aactgtctga tgaaaatgct gantggaaac      720
ttagctttca agaagtttct caagngcctt naacccatct ttnaaccttc ttgagaagaa      780
tgtgcccttg gaggatgaaa cgtatgccan atggagcttg aaancgaggt ggactgtaan      840
ccgttggnct gggncctggg gaaaattggg tcttggacaa g                         881
```

```
        <210> 333
        <211> 810
        <212> DNA
        <213> Homo Sapiens

        <400> 333
gtgcagtcac agagaaaggg gaacccacct gtctctgcat tgagcaatgc aaacctcaca       60
agaggcctgt gtgtggcagt aatggcaaga cctacctcaa ccactgtgaa ctgcatcgag      120
atgcctgcct cactggatcc aaaatccagg ttgattacga tggacactgc aaagagaaga      180
aatccgtaag tccatctgcc agcccagttg tttgctatca gtccaaccgt gatgagctcc      240
gacgtcgcat catccagtgg ctggaagctg agatcattcc agatggctgg ttctctaaag      300
gcagcaacta cagtgaaatc ctagacaagt attttaagaa cttgataat ggtgattctc       360
gcctggactc cagtgaattc ctgaagtttg tggaacagaa tgaaactgcc atcaatatta      420
caacgtatcc agaccaggag aacaacaagt gcttagggg actctgtgtt gatgctctca       480
ttgaactgtc tgatgaaaat gctgattgga aactcagctt ccaagagttt ctcaagtgcc      540
tcaacccatc tttcaaccct cctgagaaga gtgtgccct ggaggatgaa acgtatgcag       600
atggagctga gaccgangtg gactgtaacc cgctgtgtct gtgcctgtgg aaattgggtc      660
tgtcagccat gacctgtgac ngaaagaatc agaagggggc ccagacccag acngaggang      720
agatgancng atatgtccag gagctccaaa gcttaggaaa cagcttgaaa aganccagag      780
agggagcccc caaagagatt atgaggaggc                                      810
```

```
        <210> 334
```

```
        <211> 808
        <212> DNA
        <213> Homo Sapiens

        <400> 334
cactttaatt tctttattca tcaatagtat ccgaaaagga agaatcagga gttacaaaaa     60
caagttaaat gcaatataga agcctactaa atacaaatac aagttcacaa acacatatgc    120
aacagaaact tgtttagatt gtttcttgaa gtttgactac ttaaaaacat aggtgtaaag    180
gaaagacatt cagactggtc cacgtgggct tgttagcagg cagaggaacc ctgctttcca    240
aaaactgata tagtccagag tcacggcatg tgggaatgtt tccatggaca ctggatctta    300
acagatgcta tagtgtttac aaaactacac acacagagaa agcccaagga agcctgcagg    360
ctaagcccta tgcttttaga gggctgaagg aaccaaacct agtttaatcc tgtttgtttg    420
ctccatgcaa aactttatgg aagactcccc agactaggct atttagcagc ttccatgaat    480
ggtcctcaga tcatgtgatt ctacggcata gacgacagct gccctattta cacagaagct    540
gcagaactca agaggaatgt ggatttgctc ttgggaagtt caatgttgca gggtaaagta    600
agtcttggat gataaccatg ttctaaatga ctagtgaaga gacactgngg tttcttgctt    660
ttaacaaatt ggnggactct tggcccttct tcccatagng tccaagggct ggtaaaacct    720
ttggattaag gcgtgnctgc ttgggagttc ttccaaggca ctttggacca gggaacctgc    780
atttcaaact ggaccaagtg gaggtttg                                       808

        <210> 335
        <211> 758
        <212> DNA
        <213> Homo Sapiens

        <400> 335
gcaattgggt atctcgaaga gcagatcaag ggcctaaaac tatcgaacag attcacaaag     60
aggctaaaat agaagaacaa gaagagcaaa ggaaggtcca gcaactcatg accaaagaga    120
agagaagacc aggtgtccag agagtggacg aaggtgggtg gaacactgta caagggccca    180
agaacagtcg ggtactggac ccctcaaaat tcctaaaaat cactaagcct acaattgatg    240
aaaaaattca gctggtacct aaagcacagc taggcagctg gggaaaaggc agcagtggtg    300
gagcaaaggc aagtgagact gatgccttac ggtcaagtgc ttccagttta aacagattct    360
ctgccctgca acctccagca ccctcagggt ccacgccatc cacgcctgta gagtttgatt    420
cccgaaggac cttaactagt cgtggaagta tgggcaggga gaagaatgac aagccccttc    480
catctgcaac agctcggcca aatactttca tgaggggtgg cagcagtaaa gacctgctag    540
acaatcagtc tcaagaagag cagcggagag agatgctgga gaccgtgaag cagctnacan    600
gaggtgtgga tgtggagagg aacagccttg agctgaaccg aaataaacaa gggagtcagc    660
aaaaccccga aanttcagca atgtcagctt attgacaagg gttgattatc agaagaggac    720
tgganaggaa gtccaaatct atcatggtna atttttc                             758

        <210> 336
        <211> 785
        <212> DNA
        <213> Homo Sapiens

        <400> 336
aaacttgcaa tgtttgtctt tattttgttc tttatatttt caaagtgaaa agaaatagta     60
ctgagtcaat ttctttttgt ttttttaaat atttgttcta tgtatttaca agccttaaag    120
ttgctctaaa gatttcaaga gtattaagag tactttttctc agggtagcac ttttttttttt    180
tttaaacaat tcttggagtt ctgtggtcca cagcatttcc ttctgtttca atgttatgta    240
cgttttgatt actattgnga tttttttaaat tttctgaagc aagctgagag gcaggcagaa    300
agatttgatg ccaaaaaaaa aaaaatcttt cttaccttgt tcaccccaaa ctttctcaaa    360
tctggactaa atgctatacc ttaaaacaaa catgaggngc atcttgaagg ggagggaaat    420
ttatttctct gcttttctat tatacaagtt gtttacagaa actgcaaatt aaaaaattac    480
actggcattt gcagtcctta aaataaatta aaagttctca acttttttttt ttttgctaaa    540
```

```
cattttttta agtatgagtc cttgtttaaa aagaaaagat taaaacagaa aatattttct    600
ataaatacnt gnattttggg tttaagggct cccgccctaa ggnttgaagg ttacttttat    660
cccaggaccc ttttcctcc atggaacccc ttttttctcnc ttttcccttt tcccacttcg    720
ngccncccnt nggggtttc tggcaaaaaa tggcccttgc tgcnctgggg aattggccaa    780
aaacc                                                               785
```

        <210> 337
        <211> 643
        <212> DNA
        <213> Homo Sapiens

        <400> 337
```
ggaagatggc ggcggccgtt ccacagcggg cgtggaccgt ggagcagctg cgcagtgagc     60
agctgcccaa gaaggacatt atcaagtttc tgcaggaaca cggttcanat tcgtttcttg    120
cagaacataa attattagga aacattaaaa atgtggccaa gacagctaac aaggaccact    180
tggttacagc ctataaccat ctttttgaaa actaagcgtt ttaanggtac tgaangtnta    240
nntaaagtgt ctgancaagt naaaaatgnn aancttantg aagataancc caaagaaacc    300
aagtntgang agaccctgga tgagggtcca ccnaaatata ctaaatctgn tctgaaaaag    360
ggagataaaa ccaactttcc caaaaaggga gatgttgttc actgctggta tacaggaaca    420
ctacaagatg ggactgtttt tgatactaat attcaaacaa gtgcaagaa naagaaaaat    480
gccaagcctt taagttttaa ggtcggagta cgcaaaagtt atcanaggat ggggatgaag    540
ctctcttgac tatgagtaaa ggagaaaagg ctngactgga aaatggaccc aaaatggctt    600
accggaaaga aagggacagc ctgatnccaa aatttcccca aat                     643
```

        <210> 338
        <211> 831
        <212> DNA
        <213> Homo Sapiens

        <400> 338
```
caagacagng gatcaatttt tattgagcca cttaagttta caacatgagg taaaaggaaa     60
aagttctcct tgaccagtat tttacacagc tgtaggaaag tattttagac cagggattca    120
taagggattt atctctcaaa agctgggacc aagtaaacaa attttattaa ctccttgaat    180
tttccagttg actcttcctt tacaatagta acaagttcta actagttgng taaatttctt    240
caaggccaag tttatcatt gttgctaata tccttagagc tgaagcactg ctatttcaat    300
caatatccac taattccact tcaaaagtga gttttgcatt tggnggaatt ttggcatcag    360
gctgtccttt ctttccgtaa gcccattctg gttcaatctc cagtcgagcc ttttctcctt    420
tactcatagt caagagagct tcatcccatc ctctgataac tttgcctact ccgaccttaa    480
aacttaaagg cttggcattt ttcttcttct ttgcacttgt ttgaatatta gtatcaaaaa    540
cagtcccatc ttgtagtgtt cctgtatacc agcagtgaac aacatctccc tttttgggaa    600
agttggtttt atctcccttt ttcagaacag gatttagtat attttggggg accctcatcc    660
agggtctctt cagacttggt ttctttgggt ttatcttcat ttaagcttca cattttttac    720
ttgctcagac actttactta tactttcagt acccttaaaa ccgcttaagt ttcaaaaaag    780
agggttatag gctgnaaccc aagggggggcc ttggtnagct ggccttgggc c            831
```

        <210> 339
        <211> 758
        <212> DNA
        <213> Homo Sapiens

        <400> 339
```
ccaacatgtc ccgtggttcc agcgccggtt ttgaccgcca cattaccatt ttttcacccg     60
agggtcggct ctaccaagta gaatatgctt ttaaggctat taaccagggt ggccttacat    120
cagtagctgt cagagggaaa gactgtgcag taattgtcac acagaagaaa gtacctgaca    180
aattattgga ttccagcaca gtgactcact tattcaagat aactgaaaac attggttgtg    240
```

```
tgatgaccgg aatgacagct gacagcagat cccaggtaca gagggcacgc tatgaggcag        300
ctaactggaa atacaagtat ggctatgaga ttcctgtgga catgctgtgt aaaagaattg        360
ccgatatttc tcaggtctac acacagaatg ctgaaatgag gcctcttggt tgttgtatga        420
ttttaattgg tatagatgaa gagcaaggcc ctcaggtata taagtgtgat cctgcaggtt        480
actactgtgg gtttaaagcc actgcagcgg gagttaaaca aactgagtca accagcttcc        540
ttgaaaaaaa agtgaagaag aaatttgatt ggacatttga acagacagtg gaaactgcaa        600
ttacatgcct gtctactggt ctatcaattg atttcaaacc ttcagaaata gaagttggag        660
tagtgacagt tgaaaatcct aaaattcagga ttcttacngg aagcagagat tgatgcttac       720
cttgtgnttt agcngagagg agacttaacc attggccg                                758
```

```
    <210> 340
    <211> 840
    <212> DNA
    <213> Homo Sapiens

    <400> 340
ccaaaagcct tgttttattt atatagagtc ctaaccactt cggtggtagg aggagtggga         60
gaggctcctt tttcaatcca gggacctcca tgatgttggt ttgttgttac caaacacaca        120
ggtaagtggc atcacggatc tggtaaacta acgacaatgt ttagtctctc tctgctagag        180
caacaaggtg agcatcaatc tctgcttctg taanaatcct gaatttagga tttttcaactg       240
tcactactcc aacttctatt tctgaaggtt tgaaatcaat tgatagaaca gtagacaggc        300
atgtaattgc agtttccact gtctgttcaa atgtccaatc aaatttcttc ttcactttтt        360
tttcaaggaa gctggttgac tcagtttgtt taactcccgc tgcagtggct ttaaacccac        420
agtagtaacc tgcaggatca cacttatata cctgagggcc ttgctcttca tctataccaa        480
ttaaaatcat acaacaacca agaggcctca tttcagcatt ctgtgtgtag acctgagaaa        540
tatcggcaat tcttttacac agcatgtcca caggaatctc atagccatac ttggatttcc        600
agttagctgc ctcatagccg tgcccttctg tacctgggat ctgctgtcag ctgcattccg        660
gtcatcacac aaccaatggt ttcagttatc ttggaataag tgaggtcact gngctggaat        720
nccaataatt tggcaggnac ctttctttct ggggngacaa ttactggccc agtcttttcc        780
tttggacagn tactggaggt aagggccacc ctgggttaat agccctttaa aggcntaatc        840
```

```
    <210> 341
    <211> 793
    <212> DNA
    <213> Homo Sapiens

    <400> 341
cactttaatt tctttattca tnaatagtat ccgaaaagga agaatcagga gttacaaaaa         60
caagttaaat gcaatataga agcctactaa atacaaatac aagttcacaa acacatatgc        120
aacagaaact tgtttanatt gtttcttgaa gtttgactac ttaaaaacat aggngtaaag        180
gaaagacatt canactggtc cncgngggct tgntagcagg cagaggaacc ctgctttcca        240
aaaactgnta tagtccanan tcncggcatg nggaatgnt tccatggacn ctggatctta        300
acagatgcta tagggtttac aaaactacnc acncagagaa agcccaagga agcctgcagg        360
ctaagcccta tgcttttaga gggctgaagg aaccaaacct agtttaatcc tgtttgnttg        420
ctccatgcaa aactttttgg aaactccccc agactaggct ttttancagn nttccattga        480
atggggcnnc aaancnttgg gaattttacg gntnaaancn aaagntngcc ttntttnccc        540
ccgaaagctt tgaaaaactt ttcagngggn atngggaat ttggnttntt ggggnngttc        600
aattgttncc ngggtaaaaa ganacccttg gggaggnaaa ccctgngtt tnaannggcc        660
ttaggggaaa naccentgg gggtntcntt ggnnttttaa caaaattggg gggncntttt        720
ggnccttcct cccaaaaggg ggcccanggn ctgnggaaaa aaccttttgg antaaggggg        780
gncccnnctt gga                                                           793
```

```
    <210> 342
    <211> 906
    <212> DNA
```

<213> Homo Sapiens

<400> 342

```
ccaacatgtc ccgtggttcc agcgccggtt ttgaccgcca cattaccatt ttttcacccg      60
agggtcggct ctaccaagta gaatatgctt ttaaggctat taaccagggt ggccttacat     120
cagtagctgt cagagggaaa gactgtgcag taattgtcac acagaagaaa gtacctgaca     180
aattattgga ttccagcaca gtgactcact tattcaagat aactgaaaac attggttgtg     240
tgatgaccgg aatgacagct gacagcagat cccaggtaca gagggcacgc tatgaggcag     300
ctaactggaa atacaagtat ggctatgaga ttcctgtgga catgctgtgt aaaagaattg     360
ccgatatttc tcaggtctac acacagaatg ctgaaatgag gcctcttggt tgttgtatga     420
ttttaattgg tatagatgaa gagcaaggcc ctcaggtata taagtgtgat cctgcaggtt     480
actactgtgg gtttaaagcc actgcagcgg gagttaaaca aactgagtca accagcttcc     540
ttgaaaaaaa agtgaagaag aaatttgatt ggacatttga acagacagtg gaaactgcaa     600
ttacatgcct gtctactgtt ctatcaattg atttcaaacc ttcagaaata gaagttggag     660
tagtgacagt tgaaaatcct aaaattcagga ttnttacaga agcagagatt gatgctcacc     720
ttgttgctct agcagagaga gactaaacat tgtcgttagt ttaccagatc cgtgatgcca     780
cttacctgtg tgtttggtaa caacaaacca acatcatgga ggtccctgga ttgaaaaagg     840
agcctctccc actcctccta ccaccgaagt ggttaggact ctatataaat aaaacaaggc     900
ttttgg                                                                906
```

          <210> 343
          <211> 875
          <212> DNA
          <213> Homo Sapiens

          <400> 343

```
gcaaggcaat tgagcgtgga acaggaaatg acaattatag aacaacggga attgctacaa      60
tcgaggtgtt tttaccacca agactaaaaa aagataggaa aaacttgttg gagacccgat     120
tgcacatcac tggcagagaa ctgaggtcca aaatagctga aacctttgga cttcaagaaa     180
attatatcaa aattgtcata aataagaagc aactacaact agggaaaacc cttgaagaac     240
aaggcgtggc tcacaatgtg aaagcgatgg tgcttgaact aaaacaatct gaagaggacg     300
cgaggaaaaa cttccagtta gaggaagagg agcaaaatga ggccaaactc aaagaaaaac     360
aaattcagag gaccaagaga ggactagaaa tactggcaaa gagagcagca gagacagtgg     420
tggatccaga aatgacaccg tacttagaca tagctaacca gacaggcaga tcaatcagaa     480
ttcccccatc agaaagaaaa gcccttatgt tagctatggg atatcatgag aagggcagag     540
ctttcctgaa aagaaaagaa tatggaatag ccttgccatg tctgttggac gctgacaaat     600
atttctgtga gtgttgcaga gagctgctgg acacagtgga taactatgcc cgtcttcagc     660
tggatatagt gtggtgttac tttcgcctgg aacagctgga atgccttgat gatgcagaaa     720
aaaaattaac ttggnccaga aatgctttaa aaattggtcc ggagaaatcn tcgaaactgg     780
tccccntaaa nggaattgtg gggaaaagag aangtctggt tctaagactn tacttacttt     840
nagggatccg aacttttcca gggggaatga tgtaa                                875
```

          <210> 344
          <211> 629
          <212> DNA
          <213> Homo Sapiens

          <400> 344

```
atatttccca ccttttattt ccatcggtat catccgttta aaaagaatga caagaagatt      60
cccatcagtc caaactggac cacccacact ttgaaaaagt tggagcattt cagccggctc     120
cgcatgatcc atcctgtctt cagtcagtgc cttctggaag ggaggggaaag tcttggatgc     180
acctggcact caatccactc ggcacctggc tgctgctgcg tcctggggc tggaaggaac     240
tcccactggg cacacatcta cagaggagtg cgtggcgcag tgaggacggt tactgctgga     300
gccgacacac agcgaactac atacttttag aaagagcctc tgtcacatgg ctagaacaac     360
aacaacaaca aagaaaaccc acaaaaaacc tggagaaaat atatctaaat ctctgatagg     420
```

```
tctcttagct agcagtgagt tcagtatgac agcacagagt ctaaaaatat taattaaaaa    480
taaattgctt tggttagcat ttaaaccttt cccattcaat agaagatttc tgtaatgagg    540
aatgctgaat atatataaag cctgccactc aatctttgaa tttcnggggg cgcaatttta    600
ctgaactaag anccctaaaa caactggcg                                      629
```

```
        <210> 345
        <211> 724
        <212> DNA
        <213> Homo Sapiens

        <400> 345
cttgggtggt tattttnctt ttctgngtcc ttccccanca gcagttggaa ttttcttttg     60
aacacaaagt aaattaatgt tnatactgnt ttttcacctg agtcatgtaa aaggtgactc    120
ctttcatttt aaaaagttat atttaatttt tggggccctt aattaaaatt taacatttaa    180
ccatgngtnn ttttttttgta aacagtctac atgtcaacaa atggataagg gttaacaaag    240
gcaaatnctg acttcatttg tgttttaaac acgattatat gaattttct  ttttaatta    300
aaaaaatgac ataaaaccat tcatataggt cctcttctct caactgcttt gagatatagc    360
tttaaatatg ggtagatcaa gacaagtaat gttggnaatc tcttatcttg catagaaaag    420
aaaaaaataa aggaacttat ttccttccta aggtctcagc tagtttctta ngtcttttct    480
tcagctccaa tggaaattnc tcatagcact tcttacagac tggcttcatg tcaaactcca    540
caaacttatt cttgantgtt aatttagtgt tgcaggtana acaggcaaag cagttcacgc    600
accaggcctt attaagagca gagacccca tcaccttcta taacacgatt gcagtgggaa     660
gcaaacatca ccaaatagct gggttatagn gagtttcaca atatgcccag gcctttcctt    720
tcaa                                                                 724
```

```
        <210> 346
        <211> 907
        <212> DNA
        <213> Homo Sapiens

        <400> 346
agagcgaaat tttaccactg agcaagtgac tgccatgctt ttgtccaaac tgaaggagac     60
agccgaaagt gttcttaaga agcctgtagt tgactgtgtt gtttcggttc cttgtttcta    120
tactgatgca gaaagacgat cagtgatgga tgcaacacag attgctggtc ttaattgctt    180
gcgattaatg aatgaaacca ctgcagttgc tcttgcatat ggaatctata agcaggatct    240
tcctgcctta gaagagaaac caagaaatgt agtttttgta gacatgggcc actctgctta    300
tcaagtttct gtatgtgcat ttaatagagg aaaactgaaa gttctggcca ctgcatttga    360
cacgacattg ggaggtagaa aatttgatga agtgttagta aatcacttct gtgaagaatt    420
tgggaagaaa tacaagctag acattaagtc caaaatccgt gcattattac gactctctca    480
ggagtgtgag aaactcaaga aattgatgag tgcaaatgct tcagatctcc ctttgagcat    540
tgaatgtttt atgaatgatg ttgatgtatc tggaactatg aatagaggca aatttctgga    600
gatgtgcaat gatctcttag ctagagtgga gccaccactt cgtagtgttt tggaacaaaa    660
ccaagttaaa gaaagaagat atttatgcag tggagatagt tggtggtgct acacgaatcc    720
ctgcggtaaa aggagaagat cagcaaaatt tttcggtaaa gaacttagta caaccnttaa    780
atgctgatga aactgcactc gaggctgggc cattgcantg ggccatctta tcgcctgctt    840
tcaaagtccg agaantttct atcactgatg tagtaccata tccatatctc tgaaaaggga    900
atcttcc                                                              907
```

```
        <210> 347
        <211> 711
        <212> DNA
        <213> Homo Sapiens

        <400> 347
ataatagnct gttttaatan aaacaagngt tggaatcaat caatgnccat ttcaggaagc     60
```

```
ttnttgtctg aatccgaagg cncagctgng tctgtaccct gctcancagc ctgggggcct      120
gggttgtctc cttgnccatc cactggtcca ttctgctctg catttttttg ttcctntttt      180
ggaggttcca ctttgggttt gggctttgaa attatagggc tacaaagtact tgncagctcc     240
ttaattttag cttcaatctc ttttgacttg acaactggat ccatggncaa actntgcttg      300
ttctgcaaat ttagcttggt attcatccac tccattgctt catttgggct tttttctacc      360
tttgtcatgt cagcagcatc cgaatgatca tactggtcct ccttgntttt gaaagagctg      420
attattttca tatactgntg aatctgnttc cctagttctt caaataattt tggtcgttct      480
tnaaattcct ggaaacgtat nttaataggt tgacctaaat tttttaattc agccaactta      540
tcaacataaa cttgctttgg ctggcttctc catcctcata caaccaattt tcagtatctt      600
ccagtttcaa agtaaaactg ttacgancat nttcactnnc aaacttctca tattcnccac      660
taaagcttgg ctctcatttc atacccccata tttcctccca ctggggtctt a              711
```

```
            <210> 348
            <211> 862
            <212> DNA
            <213> Homo Sapiens

            <400> 348
cttgagcctc atgtaaccgg cgctttagat caccaatctc ctcttgggct tcagatttaa      60
tgtcatttgc aatgactact gcagtctgga gatcagcctg aaactgccgc cattccgcag      120
attcttcccg aagtcttctg tggagtgtct ttatttctct ttccatgtcg tgcttttggt      180
cctggagttt tttaactgta ttctctagat cagaaataat gaggttgtca tgaagtttca      240
cagcacgatg ttgttctact tcatcttcaa gttcaaagat ggtttctttc atgtcactcc      300
tttctgtttc tttttcatcc aggtctgatc ttaatttttc taacgtcata ttcaaatctt      360
caatttgttt cttagcttct tcttggaagg ctcggtattc atcctctacc ttagcaatgg      420
catcctgtaa tcgattggca tcatttcggg tatgagccag atcttcctgc aagctactag      480
ccaaagtctc tgcttttttct ttgtccagcc tgacactctc caggaggtcc tgaatatcag      540
atttgnctcc agagttatgg atagaataca gctctgccac tttctgcttt tcattctcca      600
gctgagcctt caggcgattc atctctatct ggtcactggc cactgnggct ttgnattcct      660
ctaacgtggc tgncaaggct gcttttcctt tctgctcnac tcaaataaat tcgctccata      720
tgggnggact ggcgttcctt tggagtgccc cctatcattt cttggngctt tccttantgg      780
ccttgggttc tggccatttt tccaaagtat tggctttaaa atggctggct tgggacnccc      840
aaggaaagct ggttcccggt tc                                               862
```

```
            <210> 349
            <211> 832
            <212> DNA
            <213> Homo Sapiens

            <400> 349
aagactttcc tacatcagtt ttatttaaaa cacaaacaag tatttctctt tctgtaaggg      60
caaatggttc aaataatgcg gaacacgaaa cattgactaa tacaagtgct ttaaatatga      120
aacaaaatta ttttttaaaa aagcaaaaga ataaagaata tatacaaaag ggacctggaa      180
tctgtaagct gattccaaaa acgaaataag tagaaaatcc atggtgaaac ctgaacattc      240
tacctctgct ttggagaagg gctatcatac aacattcagt cagctgaaga tggattggta      300
gaggtgtgtc tatacataaa cttcagtcat ttttgcttgt gcagaatcat cccaatcttc      360
ccaagactga atgggcagtc ctgtggcttt cttcctttt catattccca acaaggctac      420
gtgaagttca actcttgatg agccgcttac aacagcagtt ccttaggagc caacatgaca      480
ggtgggtcag atttccctat gagaaacaaa actggccacc tacagcaaaa tatcaaaatg      540
ggtaagtcct tccttcctct tcctcctgat tatatacaac atatctcctt tcaagactat      600
tatttccatc atgcttattc cttcacaaat ctaaaccttg aggtgatatg aaggaaacca      660
acatcangaa aagaaaactc aattcagaaa tgaagaaaac tggcaggtat acaatacacc      720
cccagaacat ctcaatatcc ctggccagta caattcaagt gnactgggta caggcccata      780
ggattaaata attgggcagc ttgggaataa agctcatttt tttnccctca gg              832
```

```
<210> 350
<211> 782
<212> DNA
<213> Homo Sapiens

<400> 350
ccnacatcag tttnattnaa aacacaanca agnatttctn tttcngnang gncaaagggt      60
tnaaanaag cgnancacna ancatngact aatncaaggg cttnaaatat gaancaaaat     120
nattttttaa aaaagcaaaa naataaanaa tatatncaaa ngggaccngn aatcngnaag     180
cngatnccaa aaccnaaata agtaaaaaan ccanggggaa nccngancat tcnacctnng     240
nttngnaaaa gggctatcat ncaacattca gncagntgaa nanggatngg nanaggnggg     300
ncnatncata ancttcagnc attttngctn gggcaaaatc atcccaatnt tcccaanact     360
gaanggncag cccnggggct ttcttccttt nccanattcc caacanggnt acgngaagtt     420
caactntnga nganccgttt acaacagcag ttccttagga nccancatga caggggggnc     480
aaatttccct atgagaanca aaacnggcca cctacagcaa aatatcaaaa ggggnaagnc     540
cttccttcct cttcctccng attatatnca ccatatctcc tttcangact atnatttcca     600
tcaggctnat tccttcacaa atntaaacct tgaggggata tgaaggaacc caacttcngg     660
aaangaaaac tcaattcana aattgaagaa acctggcagg tatacaatac ccccccaggn     720
catntcaana tccctggcac aagnnccaat tcagggncct ggtaccagcc ccatagaaana     780
aa                                                                   782

<210> 351
<211> 775
<212> DNA
<213> Homo Sapiens

<400> 351
ggcaaggcgg ctgctgcgaa tcaccaaaag aacagggatg aaagaagaga agaaccttca      60
ggaaggaaat gaagttgatt ctcagagcag tattagaaca gaagctaaag aggcttcagg     120
tgagaccaca ggagttgaca tcactaaaat tcaagtcaag agatgtgaga ccatgagaga     180
gaagcacatg cagaaacagc aggagaggga aaaatcagtc ttgacacctc ttcggggaga     240
tgtagcatct tgcaataccc aagtggcaga gaaaccagtg ctcactgctg tgccaggaat     300
cacacggcac ctgaccaagc ggcttccac aaagtcatcc cagaaggtgg aggtagaaac     360
ctcagggatt ggagactcat tattgaatgt gaaatgtgca gcacagacct tggaaaaaag     420
gggtaaagct aaacccaaag tgaacgtgaa gccatctgtg gttaaagttg tgtcatcccc     480
caaattggcc ccaaaacgta aggcagtgga gatgcacgct gctgtcattg ccgctgtgaa     540
gccactcagc tccagcagtg tcctacagga accccccagcc aaaaaggcag ctgtggctgt     600
tgtcccgctt gtctctgagg acaaatcagt cactgtgcct gaagcagaaa atcctagaga     660
cagtctttgt gcttgncttc aacccagtcc ttnttcagat tccttacccc cagaggtgtc     720
ttggnccttt cttcatncca aatggagcct tgaaaaactt cggccgactt agctt          775

<210> 352
<211> 865
<212> DNA
<213> Homo Sapiens

<400> 352
cctacatcag ttttatttaa aacacaaaca agtatttctc tttctgtaag ggcaaatggt      60
tcaaataatg cggaacacga aacattgact aatacaagtg ctttaaatat gaaacaaaat     120
tattttttaa aaaagcaaaa gaataaagaa tatatacaaa agggacctgg aatctgtaag     180
gtgattccaa aaacgaaata agtagaaaat ccatggtgaa acctgaacat tctacctctg     240
ctttggagaa gggctatcat acaacattca gtcagctgaa gatggattgg tagaggtgtg     300
tctatacata aacttcagtc attttgtctt gtgcagaatc atcccaatct tcccaagact     360
gaatgggcag tcctgtggct ttcttccttt tccatattcc caacaaggct acgtgaagtt     420
caactcttga tgagccgctt acaacagcag ttccttagga gccaacatga caggtgggtc     480
```

```
agatttccct atgagaaaca aaactggcca cctacagcaa aatatcaaaa tgggtaagtc        540
cttccttcct cttcctcctg attatataca acatatctcc tttcaagact attatttcca        600
tcatgcttaa tncttccaaa tctaaacctt gaggngatat tgaanggaaa cccaccttca        660
nggaaaagaa aacctcaatt tcagaaatgg aagaaaaact ggcagggtat accaatacac        720
cccccccagag cattttaaa atatccctgg ncacaagtnc caattcaagg gnacctggtt        780
ccggnccata gaataaaana ntgggcactt tggaaaaaag cnccattttt ttcccttcag        840
gggggggttaa aagggccccc aaacc                                            865
```

       <210> 353
       <211> 875
       <212> DNA
       <213> Homo Sapiens

       <400> 353
```
gactttccta catcagtttt atttaaaaca caaacaagta tttctctttc tgtaagggca         60
aatggttcaa ataatgcgga acacgaaaca ttgactaata caagtgcttt aaatatgaaa        120
caaaattatt ttttaaaaaa gcaaaagaat aaagaatata tacaaaaggg acctggaatc        180
tgtaagctga ttccaaaaac gaaataagta gaaaatccat ggtgaaacct gaacattcta        240
cctctgcttt ggagaagggc tatcatacaa cattcagtca gctgaagatg gattggtaga        300
ggtgtgtcta tacataaact tcagtcattt ttgcttgtgc agaatcatcc caatcttccc        360
aagactgaat gggcagtcct gtggctttct tcctttttcca tattcccaac aaggctacgt        420
gaagttcaac tcttgatgag ccgcttacaa cagcagttcc ttaggagcca acatgacagg        480
tgggtcagat ttccctatga gaaacaaaac tggccaccta cagcaaaata tcaaaatggg        540
gtaagtcctt ccttcctctt cctcctgatt atatacaaca tatctccttt caagactatt        600
atttccatca tgcttattcc ttccaaatct aaacccttga ggtgatatga aggaaaccaa        660
catcaagaaa aagaaaactc aattcagaaa atgaagaaaa ctggcaggga tacaatacac        720
ccccagagca tcttcaatat cccctgggca cagtncccaa ttcagggact gggtacaggc        780
ccataagaat naaataattg ggcagctttg gaataaagcc tcattttttt cccttcaggn        840
gggttaaagg ggcccccaa accaaaaact ggggc                                    875
```

       <210> 354
       <211> 705
       <212> DNA
       <213> Homo Sapiens

       <400> 354
```
gactttccta catcagtttt atttaaaaca canacangta tttctctttc tgtaagggca         60
aatggttcaa ataatgcgga acacgaaaca ttgactaata caagngcttt aaatatgaaa        120
caaaattatt ttttaaaaaa gcaaaagaat aaagaatata tacaaaaggg acctggaatn        180
tgtaaggtga ttccaaaaac gaaataagta gaaaatccat ggtgaaacct gaacattcta        240
cctctgcttt ggagaagggc tatcatacaa cattcagtca gctgaagatg gattggtaga        300
ggtgtgtcta tacataaact tcagtcattt ttgcttgtgc agaatcatcc caatcttccc        360
aagactgaat gggcagtcct gtggctttct tcctttttcca tattcccaac aaggctacgt        420
gaagttcaac tcttgatgag ccgcttacaa cagcagttcc ttaggagcca acatgacagg        480
tgggtcagat ttccctatga gaaacaaaac tggccaccta cagcaaaata tcaaaatggg        540
taagnccttc cttcctcttc ctnctgatta tatacnncat atctcctttc aagactatta        600
tttccatcat gcttattcct tccaaatcta aaccttgagg ngatatgaan ggaaaccaca        660
tcaggaaaag gaaactcaat tccgaaatga ngaaaactgg caggt                        705
```

       <210> 355
       <211> 862
       <212> DNA
       <213> Homo Sapiens

       <400> 355
```

```
ccatcagtga gagcgagctg agcgccagcg ccactgagct gctgcaggac tacatgctga      60
cgctgcgcac caagctgtca tcacaggaga tccagcagtt tgcagcactg ctgcacgagt     120
accgcaatgg ggcctctatc cacgagttct gcatcaacct gcggcagctc tacggggaca     180
gccgcaagtt cctgctgctt ggtctgaggc ccttcatccc tgagaaggac agccagcact     240
tcgagaactt cctggagacc attggcgtga aggatggccg cggcatcatc actgacagct     300
ttggcaggca ccggcgggcc ctgagcacca catccagttc caccaccaat gggaacaggg     360
ccacgggcag ctctgatgac cggtcggcac cctcagaggg ggatgagtgg daccgcatga     420
tctcggacat cagcagcgac attgaggcgc tgggctgcag catggaccag gactcagcat     480
gatggacagt ggatgggggg gcacccacac cttccgcgca gtcgtcatag gccttcccag     540
aaggagctgc ccagacctgc gtgtcagccc ttggtggtgg ccaggganag gcgcccggtg     600
cagatggccc cgggcggccc aggtcctnta ctgtgaagga gcagggagct gccgagggac     660
acgagcctca gtgcggggtg gaaggctctt tgccttgtcc accagggntc agccaagccc     720
tgcagtgtgt ccccgctcgg ggagggcccg gccgagcggg cagggagagc cagtcctgtc     780
ggctgggccc ttggacggct gtcagttttg cacatgatgt tcctattgta actntcagag     840
accttaaaaa gaagtttact gc                                               862
```

        <210> 356
        <211> 750
        <212> DNA
        <213> Homo Sapiens

        <400> 356
```
ccatcagtga gagcgagctg agcgccagcg ccactgagct gctgcaggac tacatgctga      60
cgctgcgcac caagctgtca tcacaggaga tccagcagtt tgcagcactg ctgcacgagt     120
accgcaatgg ggcctctatc cacgagttct gcatcaacct gcggcagctc tacggggaca     180
gccgcaagtt cctgctgctt ggtctgaggc ccttcatccc tgagaaggac agccagcact     240
tcgagaactt cctggagacc attggcgtga aggatggccg cggcatcatc actgacagct     300
ttggcaggca ccggcgggcc ctgagcacca catccagttc caccaccaat gggaacaggg     360
ccacgggcag ctctgatgac cggtcggcac cctcagaggg ggatgagtgg daccgcatga     420
tctcggacat cagcagcgac attgaggcgc tgggctgcag catggaccag gactcagcat     480
gatggacagt ggatgggggg gcacccacac cttccgcgca gtcgtcatag gccttcccag     540
aaggagctgc cagacctgcg tgtcaaccct tggtggtggc cagggagagg cgccggtgc      600
agatggcccc gggccggccc aagtcctcta ctgtgaagga acaggagct tgccgangga      660
cacgaacctc aatgccgggg tggaangctc tttggcttgt ccaccaaggc ttagcccagc     720
ccttgcaatg nggccccgct cggggaagg                                        750
```

        <210> 357
        <211> 725
        <212> DNA
        <213> Homo Sapiens

        <400> 357
```
gcagtaaact tcttttttaag gtctctgana gttacaatag gaacatcatg tgcaaaactg      60
acagccgtcc aagggcccag ccgacaggac tggctctccc tgcccgctcg gccgggccct     120
ccccgagcgg ggacacactg cagggcttgg ctganccctg gtggacaagg caaagagcct     180
tccacccgc actgaggctc gtgtccctcg gcagctccct gctccttcac agtanaggac      240
ctgggccgcc cggggccatc tgcaccgggc gcctntccct ggccaccacc aagggctgac     300
acgcaggtct gggcagctcc ttctgggaag gcctatgacg actgcgcgga aggtgtgggt     360
gcccccccat ccactgtcca tcatgctgag tcctggtcca tgctgcagcc cagcgcctca     420
atgtcgctgc tgatgtccga natcatgcgg tcccactcat cccctctga gggtgccgac      480
cggtcatcag agctgcccgt ggccctgttc ccattggtgg tggaactgga tgtggtgctc     540
agggcccgcc ggtgcctgcc aaagctgtca gtgatgatgc cgcggccatc cttnacgcca     600
atggtctnca ggaagttctc gaantgctgg ctgnccttn tcaggatga anggccttan      660
accaagcagc anggaacttg cggnttntcc ccgaaaanct tgccncaggt tgatgcaaaa     720
acttc                                                                  725
```

-205-

```
<210> 358
<211> 813
<212> DNA
<213> Homo Sapiens

<400> 358
aaggcgacag ctgcccattc cgtcactgtg aagctgcaat aggaaatgaa actgtttgca      60
cattatggca agaagggcgc tgtttttcgac aggtgtgcag gtttcggcac atggagattg    120
ataaaaaacg cagtgaaatt ccttgttatt gggaaaatca gccaacagga tgtcaaaaat     180
taaactgcgc tttccatcac aatagaggac gatatgttga tggccttttc ctacctccga     240
gcaaaactgt gttgcccact gtgcctgagt caccagaaga ggaagtgaag gctagccaac     300
tttcagttca gcagaacaaa ttgtctgtcc agtccaatcc ttcccctcag ctgcggagcg     360
ttatgaaagt agaaagttcc gaaaatgttc ctagccccac gcatccacca gttgtaatta     420
atgctgcaga tgatgatgaa gatgatgatg atcagttttc tgaggaaggt gatgaaacca     480
aaacacctac cctgcaacca actcctgaag ttcacaatgg attacgagtg acttctgtcc     540
ggaaacctgc agtcaatata aagcaaggtg aatgtttgaa ttttggaata aaaactcttg     600
aggaaattaa gtcaaagaaa atgaaggaaa aatctaagaa gcaaggtgag ggttcttcag     660
gagtttccag tcttttactt caccttgag ccccgntcca ngtcctgaaa aagaaaatgt      720
caaggactgt ggtgangaca gtactntttt caccaaccaa ggagaagaac ccttggttag     780
atgagtctta ctgagagact ggggaaacca aaa                                  813

<210> 359
<211> 756
<212> DNA
<213> Homo Sapiens

<400> 359
cagcagagga gaggcagagg ataaaagagg aagagaaaag ggcagcagag gagaggcaaa      60
gggccagggc agaggaggaa gagaaggcta aggtagaaga gcagaaacgt aacaagcagc     120
tagaagagaa aaaacgtgcc atgcaagaga caaagataaa aggggaaaag gtagaacaga     180
aaatagaagg gaaatgggta aatgaaaaga aagcacaaga agatataaactt cagacagctg    240
tcctaaagaa acagggagaa gagaagggaa ctaaagtgca agctaaaaga gaaaagctcc     300
aagaagacaa gcctaccttc aaaaaagaag agatcaaaga tgaaaagatt aaaaaggaca     360
aagaacccaa agaagaagtt aagagcttca tggatcgaaa gaagggattt acagaagtta    420
agtcgcagaa tggagaattc atgacccaca aacttaaaca tactgagaat actttcagcc     480
gccctggagg gagggccagc gtggacacca aggaggctga gggcgccccc caggtggaag     540
ccggcaaaag gctggaggag cttcgtcgtc gtcgcgggga gaccgagagc cgaagagttc     600
gagaagctca aacagaagca gcaggaggcg gctttggagc tggaggaact caaggaaaaa     660
ganggaggag agaaggaagg tcctgganga ggaagagcag aggaaggaac aggaggaaag     720
ccgatcggaa aaccttcaag aggaggaaga agaaga                               756

<210> 360
<211> 706
<212> DNA
<213> Homo Sapiens

<400> 360
aatttcttcc atgctttatt ataaagngca naaacaacat gacttctgta tttaaaaaaa      60
caaaaactac ggttcatttt tctagatact gcacacattc cgcaggcaat tttaaacttg     120
gatcttctgt tgacttcana tgnggttggt atcactgctc aaatacagag ttatgatgat     180
cagtanaaaa gtctntattt cacagcatgg gtttctttan aaacaggctc ctgngcaaag     240
gcagtacttt taccatgaac atctntanac tgggattatt aaatatagng ataatataca     300
tgggtttact gggatattga aaaataaaag ataatgaacc caatttagta aatcaacata     360
aatacaaaac agagcgaatt agccctntac aactgagctc gtcctgcgtc ttgagcttgg     420
gttctttctg gaactgtctc aaaccttagt gggggaagtg accttatcca canattgctt     480
```

```
ttcccagagg ttccgcttgc tggataccgt ctcctggnct caagtcanaa ggtttgggag      540
caggtgactt gtttccatct ggggtttta gttagccatt cattgatgcg gctagaaacc      600
cctacctta agccagcagt ttnccttatt tgggggngcc ctgctgcant gggggggatga     660
aaacncattt cctttntcca catactcttg aaggttgcgg tacacc                    706
```

```
        <210> 361
        <211> 726
        <212> DNA
        <213> Homo Sapiens
```

```
        <400> 361
gccatgctac gcgcgctgag ccgcctgggc gcggggaccc cgtgcaggcc ccgggcccnt      60
ctgntgctgc cagcgcgcgg ccgcaagacc cgccacgacc cgctggccaa atccaagatc     120
gagcgagtga acatgccgcc cgcggtggac cctgcggagt tcttcgtgct gatggagcgt     180
taccagcact accgncagac cgtgcgcgcc ctcaggatgg anttcgtgtc cgaggtgcat     240
aggaaggtgc acgaggcccg agccggngtt ctggcggganc gcaaggccct gaaggacgcc     300
gccgagcacc gcnagctgat ggcctggaac caggcggaga accggcggct gnacgagctg      360
cggatagcga ggctgcggca ggaggancgg nagcaggagc agtgncaggc gttggagcan      420
gcccgcaagg ccgaagaggt gcangcctgg cgcagcgca aggagcgnga antgctgcag      480
ctgcagnaag aggtgaaaaa cttcatcacc cgagagaacc tggaggcacg ggtggaagca      540
gcattggact cccggaagaa ctacaactgg gccatcacca gagaggggct ggtggtcagg      600
ccacaacgca nggacttcta agggcccagt aaggacagtg cccggcaggg accatgtatg      660
tatcatggcg gaagagttgc ccttgactgg aattaaagca attggtgttg cttatgagga      720
aaggtt                                                                 726
```

```
        <210> 362
        <211> 747
        <212> DNA
        <213> Homo Sapiens
```

```
        <400> 362
gcaggaagga attccattna ttggggatgc attttcacaa tatatgttna tnggagcgat      60
ccattatcag ggaaaagtat caagggttna taaaattttt aggaanggca nattcacaga     120
acatgctagt cagctngcag ttttacctcg taaagatanc aganaattat agncaaacca     180
gtaaacangg aattnacttt tcaaaagatt aaatccaaac tgancaaaat tntaccctaa     240
aacttactcc atccaaatat tggaataaaa gtcagcaggg atncattctn ttctgaactt     300
tanattttnt anaaaaatat gtaatagnga tcaggaggag ctnttgttca aaagtncaac     360
aaagcaangt taccttacca taggccttaa ttcaaacttt gatccatttc actccaanga     420
cgggagtcaa ngctacctgg gacacttgta tttgtaaatt ctgatttagc ttatngtaaa     480
cttgggccta ctttgncatg agggtttgac ttcngcattn ttcgggntt tccttccttt      540
ggcttaggtt tgctaaagct agaanattca attgctcttt acagacttat gaggaanata     600
gactttgtaa cgcanatgtc actttttaatg ccagccctgc cctggttagc ncttctggag     660
gaatactgca gataagaaaa atagttattt gggaggctcc ctcagngggg tanggaattg      720
gggactaacc ncaatttttng gttaaag                                         747
```

```
        <210> 363
        <211> 1227
        <212> DNA
        <213> Homo Sapiens
```

```
        <400> 363
gtgaagaccc tgagtccgtt tatttgccgg taggagcagg ctccaacatt ttgtctccat      60
caaacgttga ctgggaagta gaaacagata attctgattt accagcaggt ggagacatag     120
gaccaccaaa tggtgccagc aaggaaatac cagaattgga agaagaaaaa acaattccta     180
ccaaagagcc tgagcagata aaatcagaat acaaggaaga aagatgcaca gagaagaatg     240
```

```
aagatcgtca tgcactacac atggattaca tacttgtaaa ccgtgaagaa aattcacact    300
caaagccaga gacctgtgaa gaaagagaaa gcatagctga attagaattg tatgtaggtt    360
ccaaagaaac agggctgcag ggaactcagt tagcaagctt cccagacaca tgtcagccag    420
cctccttaaa tgaaagaaaa ggtctctctg cagagaaaat gtcttctaaa ggcgatacga    480
gatcatcttt tgaaagccct gcacaagacc agagttggat gttcttgggc catagtgagg    540
ttggtgatcc atcactggat gccagggact cagggcctgg gtggtctggc aagactgtgg    600
agccgttctc tgaactcggc ttgggtgagg gtccccagct gcagattctg gaagaaatga    660
agcctctaga atctttagca ctagaggaag cctctggtcc agtcagccaa tcacagaaga    720
gtaagagccg aggcagggct ggcccggatg cagttaccca tgacagtgaa tgggaaatgc    780
tttcaccaca gcctgttcag aaaaacatga tccctgacac ggaaatggag gaggagacag    840
agttccttga gctcggaacc aggatatcaa gaccaaatgg actactgtca gaggatgtag    900
gaatggacat ccccctttgaa gagggcgtgc tgagtcccag tgctgcagac atgaggcctg    960
aacctcctaa ttctctggat cttaatgaca ctcatcctcg gagaatcaag ctcacagccc   1020
caaatatcaa tctttctctg gaccaaagtg aaggatctat tctctctgat gataactttg   1080
gacagtccag atgaaattga catcaatgtg gatgaacttg ataccccccga tgaagcagat   1140
tcttttgagt accctggccc atgaagaatc ccacagccac aaagattctg gcccaagaag   1200
tcagagtcta tttcnggaat ataccgg                                        1227
```

```
        <210> 364
        <211> 831
        <212> DNA
        <213> Homo Sapiens

        <400> 364
ctgacatcta caccgaggtc cgcgagctgg tgagcctcaa gcaggagcag caggctttca     60
aggaggcggc ccgacacgga gcggctcgcc ctgcaggccc tcacggagaa gcttctcagg    120
tctgaggagt ccgtctcccg cctcccggag gagatccgga gactggagga agagctccgc    180
cagctgaagt ccgattccca cgggccgaag gaggacggag gcttcagaca ctcggaagcc    240
tttgaggcac tccagcaaaa gagtcaggga ctggactcca ggctccagca cgtggaggat    300
ggggtgctct ccatgcaggt ggcttctgcg cgccagaccg agagcctgga gtccctcctg    360
tccaagagcc aggagcacga gcagcgcctg ccgcccctgc aggggcgcct ggaaggcctc    420
gggtcctcag aggcagacca ggatggcctg gccagcacgg tgaggagcct gggcgagacc    480
cagctggtgc tctacggtga cgtggaggag ctgaagagga gtgtgggcga gctccccagc    540
acccgtggaa tcactccaga aggtgcagga acaggtgcac acgctgctca gtcaggacca    600
agcccaggcc cgccgtctgc cttctcagga ctttctggac agactttctt ctctagacaa    660
cctgaaagcc tcagtcaggc cagtggaagc cggacttgaa aatgctcaag aactgctgtg    720
gacaagttgg gtgcataact cggtcaaaat tagaaaccaa cgagnacaat tttggaatca    780
agcccanggt tactagatga ccttggggaa tgatcnggat aggttgtttg t             831
```

```
        <210> 365
        <211> 785
        <212> DNA
        <213> Homo Sapiens

        <400> 365
acttgaaatc tgccagccag acaggatttc tgaggttaat ctgcttctgt taatcctcaa     60
tttaagcctt tatcattttt ctctgactag agacatccat gaaaagccac ctgttattca    120
caggggctgc gcttcaggaa accaaccaaa tgcagaagca gagaacttaa atattgtaaa    180
taagttaact gggcatgaaa atacaatgcc ttggtgttca ggtggtgaca actgctcttt    240
aagaggggac aagaaattgg ggggtagggg acacatggga aaaaaccaca cattttttgg    300
tcatgagaaa ttggacttta aatccgcgcc ctgcacacgc aattcattta gaccttttcg    360
tgaatcttct ccactttcac aaacaaccta tccagatcat tcctcaggtc atctagtaaa    420
cccttggctg attccagatt gttctcgttg gtttctattt tgaccgagta tgcaaccaaa    480
ctgtccacag cagtcctgag cattttcaag tccgcctcca cttggctgac tgaggctttc    540
aggttgtcta gagaagaaag tctgtccagg aagtcctgag gaggcagacg gcggcctgg    600
```

```
gcttggtcct gactgagcag cgtgtgcacc tgctcctgcc ctttctggga gtgattccac      660
ggtgctgggg agctngccca cacttcctct tcagcttctt ccacgtcacc cgtaaaagca      720
cccagctggg tctcgnccaa gcttcntacc gtgctgggcc aggcccatcc tggnctggct      780
tttga                                                                  785
```

```
        <210> 366
        <211> 816
        <212> DNA
        <213> Homo Sapiens


        <400> 366
gtcagccagc ctccttaaat gaaagaaaag gtctctctgc agagaaaatg tcttctaaag       60
gcgatacgag atcatctttt gaaagccctg cacaagacca gagttggatg ttcttgggcc      120
atagtgaggt tggtgatcca tcactggatg ccagggactc agggcctggg tggtctggca      180
agactgtgga gccgttctct gaactcggct tgggtgaggg tccccagctg cagattctgg      240
aagaaatgaa gcctctagaa tctttagcac tagaggaagc ctctggtcca gtcagccaat      300
cacagaagag taagagccga ggcagggctg gcccggatgc agttacccat gacagtgaat      360
gggaaatgct ttcaccacag cctgttcaga aaaacatgat ccctgacacg gaaatggagg      420
aggagacaga gttccttgag ctcggaacca ggatatcaag accaaatgga ctactgtcag      480
aggatgtagg aatggacatc ccctttgaag agggcgtgct gagtcccagt gctgcagaca      540
tgaggcctga acctcctaat tctctggatc ttaatgacac tcatcctcgg agaatcaagc      600
tcacagcccc aaatatcaat ctttctctgg accaaagtga aggatctatt ctctctgatg      660
ataactttgg acagtccaga tgaaattgac atcaatgtgg atgaacttga tacccccgat      720
gaagcagatt cttttgagta ccctggccca tgaagaatcc cacagccaca aagattctgg      780
cccaagaagt cagagtctat ttcnggaata taccgg                               816
```

```
        <210> 367
        <211> 803
        <212> DNA
        <213> Homo Sapiens


        <400> 367
aaaagaacca tggaagttct cctgaacagg tagtgaggcc aaaagttaga aaactgataa       60
gttcaagcca ggtggaccaa gaaacaggtt ttaataggca tgaggcgaaa caaagaagtg      120
ttcaaagatg gagagaggct ttggaagttg aggaaagtgg ctcagatgac ctcttaataa      180
aatgtgaaga atatgatgga gagcatgact gtatgttctt ggatccacca tactcaagag      240
ttattacaca aagggaaaca gaaaataacc aaatgacatc agaaagtgga gccacagcag      300
gaaggcaaga agtggataac accttttgga atggctgtgg agattattac caactctatg      360
acaaagatga agatagttct gaatgcagtg atgggaatg tctgcttct ttgcctcatc      420
gattttctgg tacagaaaaa gatcaatcct caagtgatga aagctgggag actctgccag      480
gaaaagatga gaatgaacct gagctacaaa gtgatagcag tggccctgaa gaagaaaacc      540
aagaattatc tcttcaggaa ggggaacaga catccttgga gagggagaa attccttggt      600
tacagtacaa tgaagtcaat gaaagcagca gtgatgaagg gaaatgaacc tgccaatgaa      660
tttgcacagc cagctttcat gttggatggt aacaataacc tggangatga cttccgtgtg      720
aagtgaagac ttagatgtgg attggagcct attttgatgg ctttgcaaat gggcctagga      780
gttgctggaa gcttttcat aag                                               803
```

```
        <210> 368
        <211> 809
        <212> DNA
        <213> Homo Sapiens


        <400> 368
attagaaatg accaccgagt atattctgtt tattgtttat gatttacaca gaaaatgatg       60
ggctgggggtt atagaacaat aaaccaacca ttacatttag acctgggctt ttgaaaaact      120
```

```
tgcattccat tttaacaatt cgtatgtatc taacaaatac ataaatccag atcacaaata      180
atcttaagag ttaaacaatt aagaaacaca aagaatacca catagatcta cctttaaata      240
tcagcattca tattataaga aataagaaaa tgttaaaaaa ataaaattag gttaagtcac      300
aacataaaat agagaaataa gataaatgct attttattaa tattcatact tatttctaat      360
ttaccttcat atagtcttaa cttttttcaaa aggatccaag atatgatcaa ataatatttt      420
agtatctgaa cttgccagcc ttagcttata ccagagcttg ttaccatgaa aatcctaaaa      480
cctcaatttt ctttttcttt tttaaaattt aagccaactc ttattcaact tttcttcttc      540
acagcagctg tttatagata gtagggagcc aagaatgaag gacagtaaca gatggaaagc      600
aaaaagtaca acagctatct taagttcagc tctcaacatt gctggttgag tttggaaccc      660
aaaaccctct taacaactgg cagataatag cttaaatctt tacaggccaa ggaagaaata      720
ttttctttgg ggacagctgn tatctagaag aaaacccang ggccctttaa tataggccta      780
aaatattaan gggnggcttt aattttagg                                      809
```

        <210> 369
        <211> 826
        <212> DNA
        <213> Homo Sapiens

        <400> 369

```
gtgaagaccc tgagtccgtt tatttgccgg taggagcagg ctccaacatt ttgtctccat       60
caaacgttga ctgggaagta gaaacagata attctgattt accagcaggt ggagacatag      120
gaccaccaaa tggtgccagc aaggaaatac cagaattgga agaagaaaaa acaattccta      180
ccaaagagcc tgagcagata aaatcagaat acaaggaaga aagatgcaca gagaagaatg      240
aagatcgtca tgcactacac atggattaca tacttgtaaa ccgtgaagaa aattcacact      300
caaagccaga gacctgtgaa gaaagagaaa gcatagctga attagaattg tatgtaggtt      360
ccaaagaaac agggctgcag ggaactcagt tagcaagctt cccagacaca tgtcagccag      420
cctccttaaa tgaaagaaaa ggtctctctg cagagaaaat gtcttctaaa ggcgatacga      480
gatcatcttt tgaaagccct gcacaagacc agagttggat gttcttgggc catagtgagg      540
ttggtgatcc atcactggat gccagggact cagggcctgg gtggtctggc aagactgtgg      600
agccgttctc tgaactcggc ttgggtgagg gtccccagct gcagattctg gaagaaatga      660
acctctagaa tctttagcac tagangaagc ctntggtcca gtcagcccat cacaggaaga      720
gttagaaccc gaggcanggc tgggcccgga tgcagtaccc cntgacagtg gaatgggnaa      780
tgcttttanc cacagcctgt tcagaaaaac atgatccttg ccccgg                    826
```

        <210> 370
        <211> 783
        <212> DNA
        <213> Homo Sapiens

        <400> 370

```
gcagaatcaa ttttttatttc tgaattatac agtgaggcta tatagatata ttgtgtcatt       60
aaagactttt atattattaa tctacattat ggagaattta tttaccaaaa cgaagtctaa      120
cagacacttt attctgagca atccaatgca tgatagaaaa acctttagat atataaaaga      180
ttaatttgtg cacatctaaa tgtttctaag ggaacaaact actgaggcat tgtgataaga      240
cgagagttgc aaacatagta ccataactga atatttaaaa ttacatctta acaaaggcta      300
ggagtagtga cttcctcaca cacctcagag aatgtcttag agagtaaccc catagaacat      360
tgtatggctt caacagaaac ttcaggattt tcttccacac tgagctactg ccctcaaaca      420
aactttctca ctccttgaca ctatcttctg tgcaaatttc tgttctttct cttaatcaag      480
gagctttgag aaacaatgct tttgccccaa tgaccccttg gttcccttaa ctacagatct      540
ataggagaaa tgcaaagcag ttcccagaag tcagaaccaa agcaagaatg ttcagagtgc      600
aagagctaga gagctaaatc atgtgaatgg ttacctctgn ctacctatct gcttanggat      660
tatttttcta nggattcatc taggattcta tttaccttgg gggtgaaatg gacatggtag      720
cttttcctta gccccatgcc aattaaaatt naatttgggc ntttaaagaa taattaaaat      780
tgc                                                                    783
```

```
<210> 371
<211> 793
<212> DNA
<213> Homo Sapiens

<400> 371
ccacactgca ggatctgtct tcttctaaag aaccttctaa ttccctaaac ttacctcaca      60
gtaatgagct gtgttcatcc cttgtgcatc ccgaattgag tgaggtcagt tctaacgttg     120
caccaagcat ccctccagta atgtcaagac ctgttagctc ttcctccatt tccactccct     180
tgcccccaaa tcaaataact gtatttgtca cttccaatcc catcacaact tcagctaaca     240
catcagcagc tttgccaact cacttgcagt ctgcattgat gtcaacagtt gtcacaatgc     300
ccaatgcggg tagcaaggtt atggtttctg agggacagtc agctgctcag tctaatgccc     360
ggcctcagtt cattacacct gtctttatca attcatcctc aataattcag gttatgaaag     420
gatcacagcc aagcacaatt cctgcagccc cactgacaac caactctggc ctgatgcctc     480
cctctgttgc agttgttggc cctttacaca tacctcagaa cataaaattt tcttctgctc     540
ctgtaccgcc taatgccctc tccagtagtc ctgctccaaa catccagaca ggtcgacctt     600
tggtccttag ctcacgagcc acccctgttc agcttccttc ccttcttgna cgtcttctnc     660
agttgccctt ctnatccect gtgcaacaag tgaaagaatt gaatncagat gangctagcc     720
ctnangtgaa cacttaaca gatcagacac tttttccttt tncagtcaac cccaatgggt     780
tcttcccttt tga                                                        793
```

```
<210> 372
<211> 804
<212> DNA
<213> Homo Sapiens

<400> 372
cacattgtac aaatccttag attctcttta ttcactggtc catttctaca acaaatacat      60
ccaaaacact atataataaa attatttaca acatttccaa atgagaagat tgcttttgcc     120
cccactactg ctattcacac acagtacttc cacggcacaa tacattagga gatctaaaaa     180
tgctcaccct gtactctagg ctgcttagga aatgtgaaaa ctagtaacat ttataatggc     240
attagctcct ttcaatacaa gacaacattt tagaaacctt gaacttcaac tcgcaacacc     300
aaaagggctc aacagtcctg ctttccccat tgcactttat gaaacaggtt gcagggacta     360
ggaaaagggc cacattatta aaattactaa ctgtacagaa attgatttaa aaaagtcaca     420
gctcaaaatt gctctttgta aaagtcacac acatttccaa gtatcaagtc gcagtcctgc     480
ttgtttactt ggattttctt cgcttggatt gcaccgcact ggttatgtct ttagtagagc     540
tggaggctga agcaggtcga gaagatcgtt tacgatgtcc attttccaca ctttcagagg     600
ccacagttgg ctcttcagtt cgggagtttc ttcggcctgg gatttggact tttcaactat     660
ctctttgggc tcactgcttt gtccagagac tatggcagca tttacctccg ctttgggctg     720
gcaacagang cctgcaatgc tgngggttga agttcctttt gagactaaat tctggcgacn     780
gggctttgct gggggtaaag ttct                                            804
```

```
<210> 373
<211> 792
<212> DNA
<213> Homo Sapiens

<400> 373
gccggccgcc cgcgcccgcc cgccgctgcc cccagctcga ggaggacatc gcggccaagg      60
agaagttgct gcgggtgtcg gaggacgagc gggaccgggt gctggaggag ctgcacaagg     120
cggaggacag cctcctggcc gccgaagagg ccgccgccaa ggctgaagcc gacgtagctt     180
ctctgaacag acgcatccag ctggttgagg aagagttgga tcgtgcccag gagcgtctgg     240
caacagcttt gcagaagctg gaggaagctg agaaggcagc agatgagagt gagagaggca     300
tgaaagtcat tgagagtcga gcccaaaaag atgaagaaaa aatggaaatt caggagatcc     360
aactgaaaga ggcaaagcac attgctgaag atgccgaccg caaatatgaa gaggtggccc     420
```

```
gtaagctggt catcattgag agcgacctgg aacgtgcaga ggagcgggct gagctctcag        480
aaggccaagt ccgacagctg gaagaacaat taagaataat ggatcagacc ttgaaagcat        540
taatggctgc agaggataag tactcgcaga aggaagacag atatgaggaa gagatcaagg        600
tcctttccga caagctgaag gaggctgaga ctcgggctga gttttgcgga aaaggtcagt        660
aactaaantt ggagaaaaag catttgatga cttagaagaa gaaagtggct tcatgcccaa        720
agaagaaaan cttatatgca tcaanatgct ggatcagact ttactggagt taaaccacat        780
gtgaaaaact tc                                                            792
```

        <210> 374
        <211> 745
        <212> DNA
        <213> Homo Sapiens

        <400> 374

```
agccgataac agtagaactc tgaacgtgga ttccactgca atgacactac ctatgtctga         60
tccaactgca tgggccacag caatgaataa tcttggaatg gcaccgctgg gaattgccgg        120
acaaccaatt ttacctgact ttgatcctgc tcttggaatg atgactggaa ttccaccaat        180
aactccaatg atgcctggtt tgggaatagt acctccacca attcctccag atatgccagt        240
agtaaaagag atcatacact gtaaaagctg cacgctcttc cctccaaatc caaatctccc        300
acctcctgca acccgagaaa gaccaccagg atgcaaaaca gtatttgtgg gtggtctgcc        360
tgaaaatggg acagagcaaa tcattgtgga agttttcgag cagtgtggag agatcattgc        420
cattcgcaag agcaagaaga acttctgcca cattcgcttt gctgaggagt acatggtgga        480
caaagccctg tatctgtctg gttaccgcat tcgcctgggc tctagtactc acaagaagga        540
cacaggcaga ctccacgttg atttcgcaca ggctcgagat gacctgtatg agtgggagtg        600
taaacagcgt atgctagcca gagaggagcg ccatcgtaga agaatggaag aagaaagatt        660
gcgtncacca tnttcacccc cagtggtcac tatttagatc atgaatgcag cattggtgct        720
gaaaaaataa aaggaggatt ccaaa                                              745
```

        <210> 375
        <211> 734
        <212> DNA
        <213> Homo Sapiens

        <400> 375

```
gaggtataaa aaggaatatt tatcttttaa aaatacaact ttgaacacta ctggcatctc         60
atttacaaag tatttttgtg aaatactctc cattggcttt gcttgctcag tacattcttt        120
tatcttcaat tgagactcaa gggagggtat gcttgcatta ttataaatac cacaaccacc        180
accacacaca ataaagacca tctctgcctc aggacattcg ccccaaacct ccatcctctc        240
tgtttacttt ccaccaagca gaagtttctg aatggtccac tcacatgctg ccattgcgat        300
ttgccgatgg gcactaccaa ggtgtctctg gcaattcgca ctccaggtgg agctgaccta        360
tttgtagaaa gcctcacaaa ccctagctca ttatttattc attgattcat tactattaat        420
acttatatca agtctttgca aacattcagc atgaagtaaa catagtattt acagcagtac        480
tcggtttgca attcaacaca ctgacaacag aagcaaaggg accaacagac tgtaagaagg        540
ccagagggga aagaatatta atataaatcc cttctgccac tgtgtgccgt gccgtgtgtg        600
tgtttgtgcg tgtgtgccca cacatgagca tattttaatt cacagaaaaa ctgaaacatg        660
ccctcctttta aaagcagact atttacaagt gattctgaat agcatgaaca catgccagnc        720
atactggaaa cttg                                                          734
```

        <210> 376
        <211> 822
        <212> DNA
        <213> Homo Sapiens

        <400> 376
```
ggctgatcag tgttctagaa cagatcagac attttgtaat gatgcctgaa ataaacacta         60
```

```
accacctcga caagcaacag gttcaactcc tggcagagat gtgtatcctt attgatgaaa    120
atgacaataa aattggagct gagaccaaga agaattgtca cctgaacgag aacattgaga    180
aaggattatt gcatcgagct tttagtgtct tcttattcaa caccgaaaat aagcttctgc    240
tacagcaaag atcagatgct aagattacct ttccaggttg ttttacgaat acgtgttgta    300
gtcatccatt aagcaatcca gccgagcttg aggaaagtga cgcccttgga gtgaggcgag    360
cagcacagag acggctgaaa gctgagctag gaattccctt ggaagaggtt cctccagaag    420
aaattaatta tttaacacga attcactaca aagctcagtc tgatggtatc tggggtgaac    480
atgaaattga ttacattttg ttggtgagga agaatgtaac tttgaatcca gatcccaatg    540
agattaaaag ctattgttat gtgtcaaagg aagaactaaa agaacttctg aaaaaagcag    600
cccagtggtg aaattaagat aacgccatgg tttaaaatta ttgcagcgac ttttctcttt    660
aaatggtggg ataacttaaa tcatttgaat caagtttggt gacccatgag aaaatatacn    720
gaatggggaa tatgtaggta aatggattac ccgaaaaaan ttatctgntt aacaaactta    780
gaaaggcttt ttnccttta aattaagttc tatcattaaa tt                       822
```

        <210> 377
        <211> 812
        <212> DNA
        <213> Homo Sapiens

        <400> 377

```
gcaagaaata aattttatt tttcttcatt atcatacagc atttaagaat aataaatctg      60
tcttgaggtt tcaaatctga gatatctatg gcaagtttat aaaaagtaca ttgatcaagg    120
tacaattttt aacattaata tacacattcc ataatctcat ctatttaaca ttaacacagg    180
cctttgttgt tgttatttt ttctccctac aatatttcct gactctgtag gacagtggtc    240
ctcagttggg ggttgactct gtcccctagg ggcatctggc aacatccggc ataactgtgg    300
gtgtcacatg agagggacgc tgctcaccat cctgcaatgc acagcacaga ccccaccaca    360
ggggtttat ccagcccaaa tgtcaacagt gtcaagttta agcaactctt accgagtggg     420
actcaattcc cattttatga acacctctgt gctcactgta attctgaaaa cacagacttt    480
gctaactggt aaatactatt tacaagaaga ttcaacctaa tcaatatcac ttatcaaaag    540
cagtggctga ctgtaagtat caacatgttt ccagaatgaa taaaccacac aatcaactca    600
gaatgataca aattagggtc catatcattt aatttccctt gaacctgctc tgctaggtta    660
atctgctaat atgaaagtta attaagactg gttttgaagg accgaggaca atagtttcct    720
ttgcacaatt ttctgaacta tgagaaaaat ttaaaggatc cntaaagcnc ctggcaaaaa    780
gccaaggccc tttgcaaagg gcttccggaa aa                                 812
```

        <210> 378
        <211> 870
        <212> DNA
        <213> Homo Sapiens

        <400> 378

```
aaaatttaag ccaactctta ttcaacttt cttcttcaca gcagctgttt atagatagta     60
gggagccaag aatgaaggac agtaacagat ggaaagcaaa aagtacaaca gctatcttaa    120
gttcagctct caacattgct ggttgagttt ggaaccaaaa cctcttaaca actggcagat    180
aatagctaaa tcttaacaga caaagaagaa atattttctt tgggacagct gctatctaga    240
agaaaaccaa ggtcccttaa tatagtctaa atataatgtg tggcttatta tagagaaatc    300
tttagcaacg taagtttaac cagtaagtgt cacaactgat caacagtact taaaaggaaa    360
caaacaaaaa tcacactagc cacaaatttc caccatatac acatgaaatt aattttaatc    420
tgttttgact ccttgacact aactgatcat taatgaaata tgatatggaa agatcacaga    480
gtagaaaaca agcaaagatt agtttataca acagtgacta tatacatcag agggaaaaca    540
tgctagctaa tgcaacatta aggcctgaat gtaagcattt cccaagtcac agaagcccca    600
aagaactcct aaattacaaa ttcatcacat tacatgcatg caatggtcac ttttggttta    660
cccataaaag gatacncagt attttgctgn aaataccagg accacattta caatatatgc    720
aaaaaattag aatgcagngg taagntcctt anatttaagc cctcatatgn gncaacaggg    780
gaaaattcca tttatttta agaaaggaaa aanggagacn gggatataaa tactcggaga    840
```

```
aattccccga attaagaagn aacctctgca                                    870
```

```
        <210> 379
        <211> 837
        <212> DNA
        <213> Homo Sapiens

        <400> 379
gaggagaggt caaccgtcgt agcgccaata acttctactc catgatccag tcggccaaca      60
gccatgtccg ccgcctggtg aacgagaaag ctgcccatga gaaagatatg gaagaagcaa     120
aggagaagtt caagcaggcc ctttctggaa ttctcattca atttgagcag atagtggctg     180
tgtaccattc cgcctccaag cagaaggcat gggaccactt cacaaaagcc cagcggaaga     240
acatcagcgt gtggtgcaaa caagctgagg aaattcgcaa cattcataat gatgaattaa     300
tgggaatcag gcgagaagaa gaaatggaaa tgtctgatga tgaaatagaa gaaatgacag     360
aaacaaaaga aactgaggaa tcagccttag tatcacaggc agaagctctg aaggaagaaa     420
atgacagcct ccgttggcag ctcgatgcct accggaatga agtagaactg ctcaagcaag     480
aacaaggcaa agtccacaga gaagatgacc ctaacaaaga acagcagctg aaactcctgc     540
aacaagccct gcaaggaatg caacagcatc tactcaaagt ccaagaggaa tacaaaaaga     600
aagaagctga acttgaaaaa ctcaaagatg acaagttaca ggtggaaaaa atgttggaaa     660
atcttaaaga aaaggaaagc tgtgcttcta ngctgtgtgc ctcaaaccag gatagcgaat     720
accctnttga gaaagaccat gaacagcagt cctatcaaaa tcttgaaccg tgaagcactg     780
gttagtgggg gattatcttc cacanttcct tcatggtcac cccatttgga gccagcc       837
```

```
        <210> 380
        <211> 793
        <212> DNA
        <213> Homo Sapiens

        <400> 380
gttgcttagt ttcaggagtt ctctacatat tctggatatt aattcctttt catatatatg      60
atttgcaaat attttctccc attctgtggg gtttttttac tttgttgata ttgtcttttg     120
agacacaatt ttttttaatt ttcatgaagt ccaatttgtc tattttttttt cttttgttgc     180
ctattttgtg tcatcctcaa gaaaccatta ccaaatccag tgttttgaag ctttccccat     240
atgttttatt ctaagagcct tatggtttta ggccttacat ttaggccttt gatccatttt     300
gagttaattt ttgtatatgg tgttaggtaa ggacccaact tccttgtttg gcatgtggat     360
atccaatttt cctaccacca tttgtttgaa aagattgtcc tttccccatt gaatggtctt     420
ggtagccttg tcaaaagtca actgatcata catcttattt atttccggcc tccctaatct     480
attctatcag actatatgtc tgtctttatg ccagtaccac attgttttga ttactgttag     540
tccatcttta ttatataaaa tcatgattac aagctcatac tataatatta tattttatac     600
ttttccaaat cttccatagc attgngttct tcttccacta aaaagcagac cgtttagagg     660
tataataagt agcctgaagt gggcaagtaa tgaaacaaac ttgagaatta cataaccttn     720
cagctataga gttcataatg gcccgaaagg gtaaagactg caggncgctt aattnccagg     780
cttttcacca ggc                                                      793
```

```
        <210> 381
        <211> 807
        <212> DNA
        <213> Homo Sapiens

        <400> 381
agaacaccct cttagatgtc ttgttctgtg tgcccaagta catgccggaa tgtggagaag      60
aaatgggttc tctctagtaa accagattta ttactaccat aatgtgaaat gcagacgtga     120
gatgtttgac aaggatgtag taatgcttca gacaggtgtc tccatgatgg atccaaatca     180
tttcctgatg atcatgctca gccgctttga actttatcag attttcagta ctccagacta     240
tggaaaaaga tttagttctg agattaccca taaggatgtt gttcagcaga caatactct     300
```

```
aatagaagaa atgctatacc tcattataat gcttgttgga gagagattta gtcctggagt    360
tggacaggta aatgctacag atgaaatcaa gcgagagatt atccatcagt tgagtatcaa    420
gcctatggct catagtgaat tggtaaagtc tttacctgaa gatgagaaca aggagactgg    480
catggagagt gtaatcgaag cagttgccca tttcaagaaa cctggattaa caggacgagg    540
catgtatgaa ctgaaaccag aatgtgccaa agagttcaac ttgnatttct atcacttttc    600
aagggcagaa cagtccaagg cagaagaagc gcaacggaaa ttgaaaagac naaatagaga    660
agatacagca cttccacctt ccggggttgn ctncattctg gcctctggtt gcaagcctgg    720
gtaacanttt gcagtcagat gtcatggtgn gcatcatggg gaaccaattn tgcaatgggc    780
tgtggaacca taaanggata tgcctgg                                        807
```

```
        <210> 382
        <211> 800
        <212> DNA
        <213> Homo Sapiens

        <400> 382
aagtttaaat aaagaattta tttccaaatt cagcagaact tctttctttc ttaaaaagcc    60
aactgggtta aaaaaatcca agtttgtgtt ttttggtggt gcaataatta taaatgttgc    120
cagtcaatgc caaccagtgt ctgattggct tcctgtgcat gtccaatttc ctctgtgaca    180
ctgtgttggt gccagagctt ctgaatcttc ttgaatcgct ctttgcataa atgtaaagga    240
tttccccgtc tgagtccctg gtcggtctcc ccatagtcat caaggtaagg aggagaataa    300
aaacagcctt tggttttgcc agctaaaaat agcacctgac attcccgtac tctcaggaag    360
atgcccactc cagagccaca ggagtaggtg tgagctgtgc aggctcctac atcctcccct    420
tccagttcag tctggcagca gtaactctgg gagcacagca gagatccgca cacaaggcac    480
agagttgggg ctctgctctt atcaccacct gatttcgggc acgagaaatt ggatgcttga    540
ttaatgaggc tgctgtaatc ctctggaagg tttattaatt tgttaagatt ctcttggata    600
tcttatagca tctcttttca ccttctagaa atcttttaac tttcactggt accggcacca    660
acntttcaat cagggaattc antatctcac tattttcttt gaaaaaggca aatggaggtt    720
ggtttgggta agggaaagga aaggcttccn taaaaggttc aaaaagggct tngttnccag    780
gnaaccttgn aatgtcgggt                                                800
```

```
        <210> 383
        <211> 1203
        <212> DNA
        <213> Homo Sapiens

        <400> 383
ctgacatcta caccgaggtc cgcgagctgg tgagcctcaa gcaggagcag caggctttca    60
aggaggcggc ccgacacgga gcggctcgcc ctgcaggccc tcacggagaa gcttctcagg    120
tctgaggagt ccgtctcccg cctcccggag gagatccgga gactggagga agagctccgc    180
cagctgaagt ccgattccca cgggccgaag gaggacggag gcttcagaca ctcggaagcc    240
tttgaggcac tccagcaaaa gagtcaggga ctggactcca ggctccagca cgtggaggat    300
ggggtgctct ccatgcaggt ggcttctgcg cgccagaccg agagcctgga gtccctcctg    360
tccaagagcc aggagcacga gcagcgcctg gccgccctgc aggggcgcct ggaaggcctc    420
gggtcctcag aggcagacca ggatggcctg gccagcacgg tgaggagcct gggcgagacc    480
cagctggtgc tctacggtga cgtggaggag ctgaagagga gtgtgggcga gctccccagc    540
acccgtggaa tcactccaga aggtgcagga gcaggtgcac acgctgctca gtcaggacca    600
agcccaggcc gccgtctgc ctcctcagga cttcctggac agactttctt ctctagacaa    660
cctgaaagcc tcagtcagcc aagtggaggc ggacttgaaa atgctcagga ctgctgtgga    720
cagtttggtt gcatactcgg tcaaaataga aaccaacgag aacaatctgg aatcagccaa    780
gggtttacta gatgacctga ggaatgatct ggataggttg tttgtgaaag tggagaagat    840
tcacgaaaag gtctaaatga attgcgtgtg cagggcgcgg atttaaagtc caatttctca    900
tgaccaaaaa atgtgtggtt ttttcccatg tgtcccctac ccccaatttt cttgtcccct    960
cttaaagagc agttgtcacc acctgaacac caaggcattg tatttcatg cccagttaac    1020
ttatttacaa tatttaagtt ctctgcttct gcatttggtt ggtttcctga agcgcagccc    1080
```

```
ctgtgaataa caggtggctt ttcatggatg tctctagtca gagaaaaatg ataaaggctt    1140
aaattgagga ttaacagaag cagattaacc tcagaaatcc tgtctggctg gcagatttca    1200
agt                                                                  1203


        <210> 384
        <211> 2651
        <212> DNA
        <213> Homo Sapiens


        <400> 384
cctggctgca gagtacccca ccagcgcggt tcatagtggc gtcatgcacg cagactcctg      60
caagttcccc taagttctta gaggactgct ttgccttttg atctgagagt tgcaaagttc     120
cataaagaat ggcccttgtg gataagcaca aagtcaagag acagcgattg gacagaattt     180
gtgaaggtat ccgcccccag atcatgaacg gccccctgca cccccgcccc ctggtggcgc     240
tgctggacgg ccgcgactgc actgtggaga tgcccatcct gaaggacctg gccactgtgg     300
ccttctgtga cgcgcagtcg acgcaggaaa tccacgagaa ggttctaaac gaagccgtgg     360
gcgccatgat gtaccacacc atcaccctca ccagggagga cctggagaag ttcaaggccc     420
tgagagtgat cgtgcggata ggcagtggct atgacaacgt ggacatcaag gctgccggcg     480
agctcggaat tgccgtgtgc aacatcccgt ctgcagccgt ggaagagaca gcggactcta     540
ccatctgcca catcctcaac ctgtaccgga ggaacacgtg gctgtaccag gcactgcggg     600
aaggcacgcg ggttcagagc gtggagcaga tccgcgaggt ggcctcggga gcggcccgca     660
tccgtgggga gacgctgggc ctcattggct ttggtcgcac ggggcaggcg gttgcagttc     720
gagccaaggc ctttggattc agcgtcatat tttatgaccc ctacttgcag gatgggatcg     780
agcggtccct gggcgtgcag agggtctaca ccctgcagga tttgctgtat cagagcgact     840
gcgtctcctt gcactgcaat ctcaacgaac ataaccacca cctcatcaat gactttacca     900
taaagcagat gaggcaggga gcattccttg tgaacgcagc ccgtggcggc ctggtggacg     960
agaaagcctt agcacaagcc ctcaaggagg gcaggatacg aggggcagcc ctcgacgtgc    1020
atgagtcaga gcccttttagc tttgctcagg gtccgttgaa agatgcaccg aatcttatct    1080
gcactcctca cactgcctgg tacagcaagc aggcgtcact ggagatgagg gaggcagctg    1140
ccactgagat ccgccgagcc atcacaggtc acatcccaga aagcttaaga aactgtgtga    1200
acaaggaatt atctgtcaca tcagcgcctt ggtcagtaat agaccagcaa gcaattcatc    1260
ctgagctcaa tggtgccaca tacagatatc cgccaggcat cgtgggcgtg gctccaggag    1320
gacttcctgc agccatggaa gggatcatcc cctgnaaggc atcccagtga ctcacaaccc    1380
tcccgacagt ggcacatcct ttcccaaggg ccttntccca accagcccac aaaacacggg    1440
gccaatcgag agcacccccaa cgagcaatag cagagaatgc cagaaggtaa tcactcagat    1500
acacttggga ccaagagnca gtgaaaaata gatgaactaa gagaaaaaga atcggatggt    1560
ctttgtaact tgattctgga catatgcatc attgatgttg cagtgttgaa actacaagag    1620
ctagaaaact gaagatgtcg tctgcttacg gaagcgctga aagactagga tgtgatttat    1680
taacgaccaa cttctgttat tgtgtgttaa gttttttcatc tgtgcatcaa atcacaaaaa    1740
gaataaatag agcttttttcc tttatcagtc ccttgggcac agcaggtcct gaacaccctg    1800
ctctacaatg ttgcatcaag agttcaaaca acaaaataaa aaatattaag aggaaatccc    1860
catcctgtga cttgagtccc ttaagtctac aggggctggt gacctctttt tgctaatagg    1920
aaaatcacat tactacaaaa tggggagaaa actgtttgcc tgtggtagac acctgcacgc    1980
ataggattga agacagtaca ggctgctgta cagagaagcg cctctcacat ctgaactgca    2040
tactgagcgg gcaagtcggt tgtaagttca gtaaaaccct ctgatgatgc aaaaaaaaaa    2100
aaaaagtatt aagtttcaca agctgtttgt actcaaatat attttctcag tttcagatcc    2160
tctgctattt tattgagtgg aaagtcttga gctaaaaggg ttcaagaaga ataatgttgc    2220
atttccttat gtctcaggaa acactttta tggtaacttg tcagattgtc tatgaacaaa      2280
cccactttt tagacattga taaagtcttc ttcacgtgat atttttataca agaacacttc    2340
agatgtatta gatgtgactg atttttaacaa atcctattag atttgtatca actagttaca   2400
tgttctattc atagtctttt gtgaatcatt gccttttgt ttaaaaagat ggcctatttt     2460
gagcctttgt ataggtacat tcctgttttt gtgacaaaag aaaaacttta aaattgtccc    2520
aaacagaaaa ataatggcta tcagaagtat gttttgtttt agtgtgagtt accgttactg    2580
tatttgttta ttgtaaaggt ggacatttag cgttcagtgc agttttcaat aaaaagtaat    2640
taaaatttgt t                                                         2651
```

-216-

```
        <210> 385
        <211> 804
        <212> DNA
        <213> Homo Sapiens

        <400> 385
cctggctgca gagtacccca ccagcgcggt tcatagtggc gtcatgcacg cagactcctg        60
caagttcccc taagttctta gaggactgct ttgccttttg atctgagagt tgcaaagttc       120
cataaagaat ggcccttgtg gataagcaca aagtcaagag acagcgattg gacagaattt       180
gtgaaggtat ccgcccccag atcatgaacg gcccctgca ccccgcccc ctggtggcgc         240
tgctggacgg ccgcgactgc actgtggaga tgcccatcct gaaggacctg gccactgtgg       300
ccttctgtga cgcgcagtcg acgcaggaaa tccacgagaa ggttctaaac gaagccgtgg       360
gcgccatgat gtaccacacc atcaccctca ccaggaggga cctggagaag ttcaaggccc       420
tgagagtgat cgtgcggata ggcagtggct atgacaacgt ggacatcaag gctgccggcg       480
agctcggaat tgccgtgtgc aacatcccgt ctgcagccgt ggaagagaca gcggactcta       540
ccatctgcca catcctcaac ctgtaccgga ggaacacgtg gctgtaccag gcactgcggg       600
aaggcacgcg ggttcagagc gtggagcaga tcccgcgagg tggcctcggg agcgggccgc       660
atncgtgggg agacgcttgg gcctcattgg ctttggtccg caccggggca agccggttgc       720
agttcgagcc aaggcctttg gattcagcgc atattttatg accctacttt gcanggatgg       780
gatcgaaccg gtcccntggc cgtg                                             804

        <210> 386
        <211> 782
        <212> DNA
        <213> Homo Sapiens

        <400> 386
gcatcatcag agggttttac tgaacttaca accgacttgc ccgctcagta tgcagttcag        60
atgtgagagg cgcttctctg tacagcagcc tgtactgtct tcaatcctat gcgtgcaggt       120
gtctaccaca ggcaaacagt tttctcccca ttttgtagta atgtgatttt cctattagca       180
aaaagaggtc accagcccct gtagacttaa gggactcaag tcacaggatg gggatttcct       240
cttaatattt tttattttgt tgtttgaact cttgatgcaa cattgtagag cagggtgttc       300
aggacctgct gtgcccaagg gactgataaa ggaaaaagct ctatttattc tttttgtgat       360
ttgatgcaca gatgaaaaac ttaacacaca ataacagaag ttggtcgtta ataaatcaca       420
tcctagtctt tcagcgcttc cgtaagcaga cgacatcttc agttttctag ctcttgtagt       480
ttcaacactg caacatcaat gatgcatatg tccagaatca gttacaaaga ccatccgatt       540
cttttttctct tagttcatct atttttcact ggctcttggt cccaagtgta tctgagtgat       600
taccttctgg cattctctgc tattgctcgg tggggtgctc tcgatggccc cgtggtttgn       660
gggctggttg ggaanagggc ncttgggaaa ggaagtgcca ctgtccggaa ggntggtgaa       720
gtcactggga ngcctccagg gatgannccc tttccatggg ntgcaaggaa agncttcctg       780
ga                                                                     782

        <210> 387
        <211> 865
        <212> DNA
        <213> Homo Sapiens

        <400> 387
agattancnn cnggagctcg cgcgcctgca ggtcgacact agtggatcca aagctgtatc        60
agagcgactg cgtctccttg cactgcaatc tcaacgaaca taaccaccac ctcatcaatg       120
actttaccat aaagcagatg aggcagggag cattccttgt gaacgcaccc cgtggtggcc       180
tggtggacga gaaagcctta gcacaagctc tcaaggaggg caggatacga ggggcagccc       240
tctatgtgcg tgagtcggag cccttttagct ttgctcaggg tccgttgaaa gatgcaccga       300
atcttatctg cactcctcac actgcctggt acagcaagca ggcgtcactg gagatgaggg       360
aggcagctgc cactgagatc cgccagccaa tcacaggtca catcccagaa agcttaagaa       420
```

```
actgtgtgaa caaggaatta tctgtcacat cagcgccttg gtcagtaata gaccagcaag    480
caattcatcc tgagctcaat ggtgccacat acagatatcc gccaggcatc gtgggcgtgg    540
ctccaggagg acttcctgca gccttggaag ggatcatccc tggaggcatc ccagtgactc    600
acaacctccc aacagtggca catccttccc aggcgccctc tcccaaccag cccacaaaac    660
acggggacaa tcgagagcac ttcaacgagc aatagcagag aatgcccgga aggtaatcat    720
tcagatacat ttgggaccna gagatagtga aaaatgatga acttagagaa aaaggaatat    780
gaaggncttt ggaactggat cttggactta tgcatcattg atgcttgcaa gtggttaaaa    840
ctnccaggag ctttgaaaac tggaa                                         865
```

```
        <210> 388
        <211> 753
        <212> DNA
        <213> Homo Sapiens


        <400> 388
gagtataang gttaaattct atttaaaaag aaagnccatt aaatcaactt caagttctta     60
nctcatagga ctatttngna ncacttcttt gnaaatatca tttngttagg tnatnggcaa    120
ancagtttca nggttcactt ccctcccttg anccaggncc aggncatttn gctttggggn    180
aaattaaaat canaattcta aaagttganc anctttgttt ttttttnaatn gactnanctn    240
tancccacca ttacaactta nggacggcat gactngataa ngannggactt gngtgaggtt    300
ttgagttttc aattaanctt tgnatcacat gaggnaatng ncagcattct tgagncnggt    360
tatggaatag gcagatanaa ccctgtagta ccaanagttg gaaatnggct aatngacaac    420
gcactngcct taaacatctc angtagagaa cttttacatt agngagangt ncttgaattt    480
cananctcac caaattttaa ttacttttta tngaaaactg cagngaangc taaaggtcta    540
cgtttacaat aaacaaatcc agtancagta actcacactg aaccaaanca tacttctgat    600
agccattatt tttcngcttg gggacaattt taaagntttt cttttggccc aaaaaccngg    660
aatgtatccc aaacnaaggc tcaaaagagg cccatcnttt tcaaacaaaa aagggcantg    720
gattcncaaa aanactgggng aaatagaaca tgg                                753
```

```
        <210> 389
        <211> 737
        <212> DNA
        <213> Homo Sapiens


        <400> 389
aggaaatcca cgagaaggtt ctaaacgaag ccgtgggcgc catgatgtac cacaccatca     60
ccctcaccag ggaggacctg gagaagttca aggccctgag agtgatcgtg cggataggca    120
gtggctatga caacgtggac atcaaggctg ccggcgagct cggaattgcc gtgtgcaaca    180
tcccgtctgc agccgtggaa gagacagcgg actctaccat ctgccacatc ctcaacctgt    240
accggaggaa cacgtggctg taccaggcac tgcgggaagg cacgcgggtt cagagcgtgg    300
agcagatccg cgaggtggcc tcgggagcgg cccgcatccg tggggagacg ctgggcctca    360
ttggctttgg tcgcacgggg caggcggttg cagttcgagc caaggccttt ggattcagcg    420
tcatatttta tgacccctac ttgcaggatg ggatcgagcg gtccctgggc gtgcagaggg    480
tctacaccct gcaggatttg ctgtatcaga gcgactgcgt ctccttgcac tgcaatctca    540
acgaacataa ccaccacctc atcaatgact ttaccataaa gcagatgagg cagggagcat    600
tccttgtgaa cgcagcccgt ggcggcctgg tggacgagaa agccttagca caagccctna    660
agganggcag gatacnaagg ggcaancctt gacgtgcatg agtcaaaanc ctttagcttt    720
tgcttaaggg tccgttg                                                  737
```

```
        <210> 390
        <211> 775
        <212> DNA
        <213> Homo Sapiens


        <400> 390
```

-218-

```
gcatcatcag agggttttac tgaacttaca accgacttgc ccgctcagta tgcagttcag      60
atgtgagagg cgcttctctg tacagcagcc tgtactgtct tcaatcctat gcgtgcaggt     120
gtctaccaca ggcaaacagt tttctcccca ttttgtagta atgtgatttt cctattagca     180
aaaagaggtc accagcccct gtagacttaa gggactcaag tcacaggatg gggatttcct     240
cttaatattt tttattttgt tgtttgaact cttgatgcaa cattgtagag cagggtgttc     300
aggacctgct gtgcccaagg gactgataaa ggaaaaagct ctatttattc tttttgtgat     360
ttgatgcaca gatgaaaaac ttaacacaca ataacagaag ttggtcgtta ataaatcaca     420
tcctagtctt tcagcgcttc cgtaagcaga cgacatcttc agttttctag ctcttgtagt     480
ttcaacactg caacatcaat gatgcatatg tccagaatca agttacaaag accatccgat     540
tcttttttctc ttagttcatc tattttttcac tgnctcttgg tcccaagtgt atctgagtga     600
ttaccttctg gcattctctg ctattgctcg ttggggtgct ctcgattggc cccgtgtttt     660
gtgggctggt tggganaagg cccttgggaa aggatgtgcc actgtcggga gggttgtgag     720
tcactgggat gccttncagg ggatgatccc tttcatggct tggcaggaaa gtctt          775
```

```
        <210> 391
        <211> 776
        <212> DNA
        <213> Homo Sapiens

        <400> 391
gtggataagc acaaagtcaa gagacagcga ttggacagaa tttgtgaagg tatccgcccc      60
cagatcatga acggcccccct gcaccccgc cccctggtgg cgctgctgga cggccgcgac     120
tgcactgtgg agatgcccat cctgaaggac ctggccactg tggccttctg tgacgcgcag     180
tcgacgcagg aaatccacga gaaggttcta aacgaagccg tgggcgccat gatgtaccac     240
accatcaccc tcaccaggga ggacctggag aagttcaagg ccctgagagt gatcgtgcgg     300
ataggcagtg gctatgacaa cgtggacatc aaggctgccg gcgagctcgg aattgccgtg     360
tgcaacatcc cgtctgcagc cgtggaagag acagcggact ctaccatctg ccacatcctc     420
aacctgtacc ggaggaacac gtggctgtac caggcactgc gggaaggcac gcgggttcag     480
agcgtggagc agatccgcga ggtggcctcg ggagcggccc gcatccgtgg ggagacgctg     540
ggcctcattg gctttggtcg cacggggcaa gcggttgcag ttcgagccaa ggcctttgga     600
ttcagcgtca tattttatga ccccctacttg caggatggga tcgagccggt ccctgggcgt     660
gcagaaggtc tacaccctgc aggatttgct gtatcagaac cgactgcgtc ttctttcact     720
tgcaatntta acgaacataa ccacccactt tatcaatgga cttttcccta aagcca         776
```

```
        <210> 392
        <211> 909
        <212> DNA
        <213> Homo Sapiens

        <400> 392
aacaaatttt aattactttt tattgaaaac tgcactgaac gctaaatgtc cacctttaca      60
ataaacaaat acagtaacgg taactcacac taaaacaaaa catacttctg atagccatta     120
ttttttctgtt tgggacaatt ttaaagtttt tcttttgtca caaaaacagg aatgtaccta     180
tacaaaggct caaaataggc catcttttta aacaaaaagg caatgattca caaaagacta     240
tgaatagaac atgtaactag ttgatacaaa tctaatagga tttgttaaaa tcagtcacat     300
ctaatacatc tgaagtgttc ttgtataaaa tatcacgtga agaagacttt atcaatgtct     360
aaaaaagtgg gtttgttcat agacaatctg acaagttacc ataaaaagtg tttcctgaga     420
cataaggaaa tgcaacatta ttcttcttga accctttttag ctcaagactt tccactcaat     480
aaaatagcag aggatctgaa actgagaaaa tatatttgag tacaaacagc ttgtgaaact     540
taatactttt tttttttttt tgcatcatca gagggtttta ctgaacttac aaccgacttg     600
cccgctcagt atgcagttca naagtganag gcgcttctct gtacagcaac ctggactggc     660
ttcaatccta tgcgtgcagg tgtctaccca gggcnaacag ttttctcccc attttggtag     720
taatgggat tttcctatta gccaaaaaag angtcaccag ncccctgnaga cttaaaggga     780
cctcaaggtc nccaggaatg ggggatttcc ctcntaaaaa attttttaatt ttggggggtt     840
gnaactcttg gangccacca tttgtaaaac canggggttc aagaacctgg ntgggcccca     900
```

```
agggacctg                                                           909

        <210> 393
        <211> 769
        <212> DNA
        <213> Homo Sapiens

        <400> 393
caaatttttaa ttacttttta ttgaaaactg cactgaacgc taaatgtcca cctttacaat      60
aaacaaatac agtaacggta actcacacta aaacaaaaca tacttctgat agccattatt     120
tttctgtttg ggacaatttt aaagtttttc ttttgtcaca aaaacaggaa tgtacctata     180
caaaggctca aaataggcca tcttttaaa caaaaaggca atgattcaca aaagactatg      240
aatagaacat gtaactagtt gatacaaatc taataggatt tgttaaaatc agtcacatct     300
aatacatctg aagtgttctt gtataaaata tcacgtgaag aagactttat caatgtctaa     360
aaaagtgggt ttgttcatag acaatctgac aagttaccat aaaaagtgtt tcctgagaca     420
taaggaaatg caacattatt cttcttgaac cctttagct caagactttc cactcaataa      480
aatagcagag gatctgaaac tgagaaaata tatttgagta caaacagctt gtgaaactta     540
atactttttt tttttttttg catcatcana gggtttactt gaacttacaa ccgacttgcc     600
cgctcagtat gccagttcan atgtgaaagg cgcttttntg tcagcagcct gnactggctt     660
caatcctatg cgtgcaggng tttacccaca ggcaaacagg ttttctncc cattttttgga     720
agtaatgggg atttttcctat tagcaaaaaa gaaggncacc aancccctg              769

        <210> 394
        <211> 813
        <212> DNA
        <213> Homo Sapiens

        <400> 394
ggaagatggc ggagctgcgc gtgctcgtag ctgtcaagag ggtcatcgac tacgccgtga       60
agatccgagt gaagcctgac aggaccggtg tggtcacgga tggtgtgaag cactccatga     120
accccttctg tgagatcgcg gtggaggagg ctgtgcggct caaggagaag aagctggtga     180
aggaggtcat cgccgtcagc tgtgggcctg cacagtgcca ggagacgatt cgtaccgccc     240
tggccatggg tgcagaccga ggtatccacg tggaggtgcc cccagcagaa gcagaacgct     300
tgggtcccct gcaggtggct cgggtcctgg ccaagctggc agagaaggag aaggtggacc     360
tggtgctgct gggcaaacag gccatcgatg atgactgtaa ccagacaggg cagatgacag     420
ctggatttct tgactggcca cagggcacat tcgcctccca ggtgacgctg gaggggaca      480
agttgaaagt ggagcgggag atcgatgggg cctggagac cctgcgcctg aagctgccag      540
ctgtggtgac agctgacctg aggctcaacg agccccgcta cgccacgctg cccaacatca     600
tgaaagccaa gaagaagaag atcgaggtga tcaagcctgg ggacctgggt gtggacctga     660
cctccaagct ctctgtgatc agtgtggagg acccgcccca gcgcacggcc ggcgtcaagg     720
tggagaccac tgaggacctg gtggccaagc tgaaggagat tgggcggatt tgagcccctc     780
ccagagatgg caataaaact gactctcaac atc                                813

        <210> 395
        <211> 762
        <212> DNA
        <213> Homo Sapiens

        <400> 395
ggaagatggc ggagctgcgc gtgctcgtag ctgtcaagag ggtcatcgac tacgccgtga       60
agatccgagt gaagcctgac aggaccggtg tggtcacgga tggtgtgaag cactccatga     120
accccttctg tgagatcgcg gtggaggagg ctgtgcggct caaggagaag aagctggtga     180
aggaggtcat cgccgtcagc tgtgggcctg cacagtgcca ggagacgatt cgtaccgccc     240
tggccatggg tgcagaccga ggtatccacg tggaggtgcc cccagcagaa gcagaacgct     300
tgggtcccct gcaggtggct cgggtcctgg ccaagctggc agagaaggag aaggtggacc     360
```

```
tggtgctgct gggcaaacag gccatcgatg atgactgtaa ccagacaggg cagatgacag   420
ctggatttct tgactggcca cagggcacat tcgcctccca ggtgacgctg gagggggaca   480
agttgaaagt ggagcgggag atcgatgggg gcctggagac cctgcgcctg aagctgccag   540
ctgtggtgac agctgacctg aggctaaacg agcccccgct acgccacgct tgccaacatc   600
atgaaagcca agaagaagaa gatcgangtg atcaacctgg gganctgggt gtggacctga   660
ctccagcttt tttgngatca gtgtgganga ccggcccacg cacgggcgcg tcaangtgga   720
gaccctgagg acctggtggn caactnaaag aaaatgggcg ga                      762
```

    <210> 396
    <211> 822
    <212> DNA
    <213> Homo Sapiens

    <400> 396

```
gagagtcagt tttattgcca tctntgggag gggctcaaat ccgcccaatc tccttcagct   60
tggccaccag gtcctcagng gtctccacct tgacgccggc cgtgcgctgg ggcgggtcct   120
ccacactgat cacagagagc ttggaggtca ggtccacacc caggtcccca ggcttgatca   180
cctcgatctt cttcttcttg gctttcatga tgttgggcag cgtggcgtag cggggctcgt   240
tgagcctcag gtcagctgtc accacagctg gcagcttcag gcgcagggtc tccaggcccc   300
catcgatctc ccgctccact ttcaacttgt cccctccag cgtcacctgg gaggcgaatg     360
tgccctgtgg ccagtcaaga aatccagctg tcatctgccc tgtctggtta cagtcatcat   420
cgatggcctg tttgcccagc agcaccaggt ccaccttctc cttctctgcc agcttggcca   480
ggacccgagc cacctgcagg ggacccaagc gttctgcttc tgctgggggc acctccacgt   540
ggatacctcg gtctgcaccc atggccaggg cggtaccaat cgtctcctgg cactgtgcag   600
gcccacagnt gacggcgatg accttccttc accaagcttt tttctccttt gagccggaca   660
ggcctcttca acgggatctt caccanaaag gggttcatgg gagngcttaa aaccatccgn   720
gaacccaccg gnccttgtna ggctttactt cggatctttn acngggggaat cgatgacccn   780
ttttgacagg tacgaacccc cgccagnttc ggcattttcc tt                      822
```

    <210> 397
    <211> 812
    <212> DNA
    <213> Homo Sapiens

    <400> 397

```
gatgttgaga gtcagtttta ttgccatctc tgggaggggc tcaaatccgc ccaatctcct   60
tcagcttggc caccaggtcc tcagtggtct ccaccttgac gccggccgtg cgctggggcg   120
ggtcctccac actgatcaca gagagcttgg aggtcaggtc cacaccagg tccccaggct    180
tgatcacctc gatcttcttc ttcttggctt tcatgatgtt gggcagcgtg gcgtagcggg   240
gctcgttgag cctcaggtca gctgtcacca cagctggcag cttcaggcgc agggtctcca   300
ggcccccatc gatctcccgc tccactttca acttgtcccc ctccagcgtc acctgggagg   360
cgaatgtgcc ctgtggccag tcaagaaatc cagctgtcat ctgccctgtc tggttacagt   420
catcatcgat ggcctgtttg cccagcagca ccaggtccac cttctccttc tctgccagct   480
tggccaggac ccgagccacc tgcaggggac ccaagcgttc tgcttctgct gggggcacct   540
ccacgtggat acctcggtct gcaccatgg ccaggcggt acgaatcgtc tcctggcact    600
gtgcaggccc acaagctgac gggcgatgaa cctccttcac cagcttcttc tccttgagcc   660
cgcacagcct tcttcaccgc gatctcacag gaagggggttc atggagtgct tacaaccatc   720
cggngaccac accgggccct gtcaggcttt aactcggant ctttacgggg taatcgnntg   780
gaccttttg acaagctacc aagcaccccg ca                                  812
```

    <210> 398
    <211> 751
    <212> DNA
    <213> Homo Sapiens

```
      <400> 398
gatgttgaga gtcagtttta ttgccatctc tgggaggggc tcaaatccgc ccaatctcct      60
ttngcttggc caccaggtcc tcagtggtct ccaccttgac gccggccgtg cgctggggcg     120
ggtcctccac actgatcaca gagagcttgg aggtcaggtc cacacccagg tccccaggct     180
tgatcacctc gatcttcttc ttcttggctt tcatgatgtt gggcagcgtg gcgtagcggg     240
gctcgttgag cctcaggtca gctgtcacca cagctggcag cttcaggcgc agggtctcca     300
ggcccccatc gatctcccgc tccactttca acttgtcccc ctccagcgtc acctgggagg     360
cgaatgtgcc ctgtggccag tcaagaaatc cagctgtcat ctgccctgtc tggttacagt     420
catcatcgat ggcctgtttg cccagcagca ccaggtccac cttctccttc tctgccagct     480
tggccaggac ccgagccacc tgcaggggac ccaagcgtnc tgcttctgct gggggcacct     540
ccacgtggat acctcggtct gcacccatgg ccagggcggt acnnaatcgn ctcctggcac     600
tgtgcaggcc cacaagntga cggggaatga cctccttnac caagcttntt ntccttgacc     660
cgaaaagctt cttcaccgng aacttncaga angggttcaa tggantgctt tacacattcg     720
ggaccacccc cgggccttgt caggctttaa t                                    751


      <210> 399
      <211> 800
      <212> DNA
      <213> Homo Sapiens


      <400> 399
agatgttgag agtcagtttt attgccatct ctgggagggg ctcaaatccg cccaatctcc      60
ttcagcttgg ccaccaggtc ctcagtggtc tccaccttga cgccggccgt gcgctggggc     120
gggtcctcca cactgatcac agagagcttg gaggtcaggt ccacacccag gtccccaggc     180
ttgatcacct cgatcttctt cttcttggct tcatgatgt tgggcagcgt ggcgtagcgg     240
ggctcgttga gcctcaggtc agctgtcacc acagctggca gcttcaggcg cagggtctcc     300
aggcccccat cgatctcccg ctccacttc aacttgtccc cctccagcgt cacctgggag     360
gcgaatgtgc cctgtggcca gtcaagaaat ccagctgtca tctgccctgt ctggttacag     420
tcatcatcga tggcctgttt gcccagcagc accaggtcca ccttctcctt ctctgccagc     480
ttggccagga cccgagccac ctgcagggga cccaagcgtt ctgcttctgc tggggggcacc     540
ttccacgtgg atacctcggt ctgacccatg gccagggcgg tacgaatcgt ctcctggcac     600
tgngcangcc cacaagctga cggcgatgac ctncttnacc agcttcttct ncttgagccc     660
ggacaagnct tcttcaaccg ggatctcaca agaaggggtc atggagtgct ttcacaccat     720
tcgggancac aaccggncct gncaaggctt naacttggac ntttacggng taatccgatg     780
aacccttttt gacagntacc                                                 800


      <210> 400
      <211> 810
      <212> DNA
      <213> Homo Sapiens


      <400> 400
ggaagactga attgaaagaa gatagctcta gcagtgaagc agaggaagaa gaggaggagg      60
aagatgatga aaagaaaag gaggataata gcagtgaaga agaggaagaa atagaaccat     120
ttccagaaga aagggagaac tttcttcagc aattgtacaa atttatggaa gatagaggta     180
cacctattaa caaacgacct gtacttggat atcgaaattt gaatctcttt aagttattca     240
gacttgtaca caaacttgga ggatttgata atattgaaag tggagctgtt tggaaacaag     300
tctaccaaga tcttggaatc cctgtcttaa attcagctgc aggatacaat gttaaatgtg     360
cttataaaaa atnctnatnt ggctntgngg agtactgtac atcagccaac attgaatttc     420
agatggcatt gccagagaaa gttgttaaca agcaatgtaa ggagtgtgaa aatgtaaaag     480
aaataaaagt taaggaggaa aatgaaacag agatcaaaga aataaagatg gaggaggaga     540
ggaatataat accaagagaa gaaaagccta ttgaggatga aattgaaaga aaagaaaata     600
ttaagccctc tctgggaagt aaaaagaatt tattagaatc tatacctaca cattctgatc     660
aggaaaaaga agttacatta aaaaaccnga agacaatgaa aatctgggcc gaccaagatg     720
atgacncaac tagggtagat gaatccctca accntaaggt agaactgagg aagaaaaagc     780
```

-222-

caaatctgga tncnatgaat gggattaagc   810

      <210> 401
      <211> 860
      <212> DNA
      <213> Homo Sapiens

      <400> 401
gggaggcccg cctagccacc ctgaccagcc gtgtagaaga agacagcaac agagattata   60
aaaaactcta tgagagtgct ctgactgaaa accaaaaact gaaaacaaaa cttcaggaag   120
cccagctaga gctagcagat ataaagtcca agcttgagaa ggtggcccag cagaaacaag   180
aaaagacctc tgaccgatca tcagtgctgg agatggagaa acgggagagg cgagccttgg   240
agcgcaaaat gtcagaaatg gaggaagaaa tgaaggtgtt aacagaactg aaatccgaca   300
accagaggct gaaagatgaa aatggtgccc tcatcagagt catcagcaaa ctgtccaagt   360
aggctaggct ccagatttat gaggaaagaa agggacagca tttgctgccc ccacccctct   420
tttccagtcc ttgccttcca accaaaagaa atggatgttt tggtggaagg acacttcttt   480
ctatcaccct cttcagtcac ctctatacac tctacatttt ctctgcactt tcaatgccct   540
gttcttccaa acccctatcc caagtttat gacagtttta attgaagcat gattgtggta   600
attcgagcca tctggagaat gctctgggga gtacaccagg ctcagctgtg gacccctcaa   660
cttcctgctg ctcagctact ttgtccacat tggatttggt ccaaacatgt aagactttct   720
accctnatca gtatccttca gcttttaca ttaacccagt gnccttctga tataggtgaa   780
gtccttgngg gtagccactt tcaggatcct ggaatggggt gcccaagaga aacngccagg   840
atggttgaat tggatcattc   860

      <210> 402
      <211> 779
      <212> DNA
      <213> Homo Sapiens

      <400> 402
gagatggagt cttgctctgt cacccaggct ggagtgcagt ggcgtgatca aggctcactg   60
caagctccgc ctcccgggtt cacgccattc tcctgcctca gcctcccgag tagctgggac   120
tacaggcgcc cgccaccacg cctggctaat tttttgtatt tttagtagag attgggtttc   180
accgtgttag ccaggatggt ctcgaactcc tgacctcgtg atctgtccac ctcggcctcc   240
tgaagtgctg ggattacagg catgagccac tgcacctggt ggaattggga tcttgaatta   300
cagcttctag tttaaacagc atgtggtgtt tcagagggag gaccatggag agctacatgt   360
catgttagga aagaattaac agacagaggt agtatatatt aagggaatga accactctaa   420
acactgaata tcactggcaa ccctaaaatg atgaggattt aatgacttgc acactcaagt   480
gaaccaaggg ataaaactcc tacaaaaaga aaatactgta agtattaatg ctaggttatc   540
atcaaganct aatggtttaa ttttgcactg gatttgnatt cttttccagg cctggacatg   600
atattttaaa ggctggttnt ggctagagga ggatgggcca anatgtgaca gggangaaaa   660
gcatgcctta tgaggaatga cttaaaggga ctagaggtaa cagcagctca aaagtaagaa   720
ctgaggggga aaaccccca ctgnaccata tntnaagggc cgttaaagaa ttgcagaat   779

      <210> 403
      <211> 1443
      <212> DNA
      <213> Homo Sapiens

      <400> 403
cttcaggaac tgttaaaaga aaaacaacaa gaagtaaagc agctacagaa ggactgcatc   60
aggtatcaag agaaaattag tgctctggag agaactgtta aagctctaga atttgttcaa   120
actgaatctc aaaaagattt ggaaataacc aaagaaaatc tggctcaagc agttgaacac   180
cgcaaaaagg cacaagcaga attagctagc ttcaaagtcc tgctagatga cactcaaagt   240
gaagcagcaa gggtcctagc agacaatctc aagttgaaaa aggaacttca gtcaaataaa   300

                      -223-

```
gaatcagtta aaagccagat gaaacaaaag gatgaagatc ttgagcgaag actggaacag    360
gcagaagaga agcacctgaa agagaagaag aatatgcaag agaaactgga tgctttgcgc    420
agagaaaaag tccacttgga agagacaatt ggagagattc aggttacttt gaacaagaaa    480
gacaaggaag ttcagcaact tcaggaaaac ttggacagta ctgtgaccca gcttgcagcc    540
tttactaaga gcatgtcttc ccttcaggat gatcgtgaca gggtgataga tgaagctaag    600
aaatgggaga ggaagtttag tgatgcgatt caaagcaaag aagaagaaat tagactcaaa    660
gaagataatt gcagtgttct aaaggatcaa cttagacaga tgtccatcca tatggaagaa    720
ttaaagatta acatttccag gcttgaacat gacaagcaga tttgggagtc caaggcccag    780
acagaggtcc agcttcagca gaaggtctgt gatactctac agggggaaaa caaagaactt    840
ttgtcccagc tagaagagac acgccaccta taccacagtt ctcagaatga attagctaag    900
ttggaatcag aacttaagag tctcaaagac cagttgactg atttaagtaa ctctttagaa    960
aaatgtaagg aacaaaaagg aaacttggaa gggatcataa ggcagcaaga ggctgatatt   1020
caaaattcta agttcagtta tgaacaactg gagactgatc ttcaggcctc cagagaactg   1080
accagtaggc tgcatgaaga aataaatatg aaagagcaaa agattataag cctgctttct   1140
ggcaaggaag aggcaatcca agtagctatt gctgaactgc gtcagcaaca tgataaagaa   1200
attaaagagc tggaaaacct gctgtnccag gaggaagagg agaatattgg tttagaagag   1260
gagaacaana angcttgtgg ttaaaaccca atcagcttat gggaacactt gaaaaccatc   1320
aaaanggaaa catttagnca aaaggcncag ttggattcct tggtnaaatc ctgncttctn   1380
ttccaaatgg atccgagaac cgcntagtgg gggactatt caccagctgg gaanagccga   1440
ctt                                                                 1443
```

        <210> 404
        <211> 819
        <212> DNA
        <213> Homo Sapiens

        <400> 404
```
gcgattcaaa gcaaagaaga agaaattaga ctcaaagaag ataattgcag tgttctaaag     60
gatcaactta gacagatgtc catccatatg gaagaattaa agattaacat ttccaggctt    120
gaacatgaca gcagatttg ggagtccaag gcccagacag aggtccagct tcagcagaag    180
gtctgtgata ctctacaggg ggaaaacaaa gaactttgt cccagctaga agagacacgc    240
cacctatacc acagttctca gaatgaatta gctaagttgg aatcagaact taagagtctc    300
aaagaccagt tgactgattt aagtaactct ttagaaaaat gtaaggaaca aaaaggaaac    360
ttggaaggga tcataaggca gcaagaggct gatattcaaa attctaagtt cagttatgaa    420
caactggaga ctgatcttca ggcctccaga gaactgacca gtaggctgca tgaagaaata    480
aatatgaaag agcaaaagat tataagcctg ctttctggca aggaagaggc aatccaagta    540
gctattgctg aactgcgtca gcaacatgat aaagaaatta agagctgga aaacctgctg    600
tnccaggagg aagaggagaa tattggttta gaagaggaga caanaaangc ttgtggttaa    660
aacccaatca gcttatggga cacttgaaa accatcaaaa nggaaacatt tagncaaaag    720
gcncagttgg attccttggt naaatcctgn cttctnttcc aaatggatcc gagaaccgcn    780
tagtgggggg actattcacc agctgggaan agccgactt                          819
```

        <210> 405
        <211> 761
        <212> DNA
        <213> Homo Sapiens

        <400> 405
```
ctgaaaataa ttttattatt ttacagttgt tcaggaaact tcccaggatg ttgtaaccaa     60
natttaatca ccacagtana tttanagcan atcagtcagc ccacttgtct tccctcttct    120
ttagggganag gctaggcagt gaacacatca tgtatgcaat ganaaaataa ccaactggta    180
ggatggggga ggggaggga ggcagggaat aggcncaaat ggaattctat cctggctgtc    240
cttctcaggt ctatctatat ttaattttgt cttctctata ttctccttcc attgccacag    300
agggcanaga caatggggct gaaaaactgt aataactgnc actaacagca aagtanctta    360
gtncttcaag aggtcaggag ttgcagtgtg gtgttanacc agtcanactc ctggctgaaa    420
```

```
gtcaatgcct ·aatattggct cccagnggcc cctgagcact gtctcagggt ccacattcca     480
ggaatnttca natnttcctg gaatgacaag aattggaacc ctgctgncca tagacacttc     540
tccctgccct ttggtgaaag gaaagacttt gggccccttt aataccttan tatcccatgt     600
gatcaagggc caaaagccaa aggggattct tatccttata gcctaagacc ctgaaattct     660
tccttccca attatatctg gaaattggcc aggggaanaa aaatgctgnc cttcccatgn     720
ggaatctacc aggnttaaaa ccccnttaag ggagttccct t                        761
```

```
        <210> 406
        <211> 758
        <212> DNA
        <213> Homo Sapiens


        <400> 406
gatactgaac ttcagattat taggtttatt gaaaccatcc tcttggcttg gctgaaagac      60
attcctcagt atcttttaca ggaccacaaa agatcagggt cctgcaaaat ctcaacaaat     120
attaggctca acaaaccaaa tgtgattctc agattaagca gaagcgttca ggctcagggc     180
agtagaagaa agcagactcg ccagtccctg cagctccaac ctgtcctcgt atcacctctg     240
tttttgcagg cactttccgt gaagagttgg agagaagacc tgtaaatggg aagactgttc     300
cactggaatt gatgttctga tgttagaggt gagagaattc caagttttga ggggagtggt     360
ccaaagagta caactaagt ctatagatgg cccgtaaaac acagaatgag caggacatga     420
atcattagaa agtagatggc tgctagaagt ggcactcggg tccgtgaatg acagagtgaa     480
cgcaggactc gcttccatcc aacgccactc cgggtccttc gacaactgtt gcttgtaaga     540
tctattaaca gtgcctgctc ctgagtgcca caggagccaa tgataggagt ccgggaaaga     600
gtcccattca ctgngctcta accggctgga tctgctcctc ggccacagga gagagcattt     660
ttcagcagcc actctttggc cncggtcttt cttccagcag cttcctttaa atcattcctt     720
tcttggctgg nggttgccat aactgctggt tggacctt                            758
```

```
        <210> 407
        <211> 778
        <212> DNA
        <213> Homo Sapiens


        <400> 407
cttcaggaac tgttaaaaga aaaacaacaa gaagtaaagc agctacagaa ggactgcatc      60
aggtatcaag agaaaattag tgctctggag agaactgtta aagctctaga atttgttcaa     120
actgaatctc aaaaagattt ggaaataacc aaagaaaatc tggctcaagc agttgaacac     180
cgcaaaaagg cacaagcaga attagctagc ttcaaagtcc tgctagatga cactcaaagt     240
gaagcagcaa gggtcctagc agacaatctc aagttgaaaa aggaacttca gtcaaataaa     300
gaatcagtta aaagccagat gaaacaaaag gatgaagatc ttgagcgaag actggaacag     360
gcagaagaga agcacctgaa agagaagaag aatatgcaag agaaactgga tgctttgcgc     420
agagaaaaag tccacttgga agagacaatt ggagagattc aggttacttt gaacaagaaa     480
gacaaggaag ttcagcaact tcaggaaaac ttggacagta ctgtgaccca gcttgcagcc     540
tttactaaga gcatgtcttc ccttcaggat gatcgtgaca gggtgataga tgaagctaag     600
aaatgggaga ggaagtttag tgatgcgatt caaagcaaag aagaagaaat tagactcaaa     660
gaagataatt gcagtgtcta aaggacactt agacagatgt ccttcntatg gaagaattaa     720
agantaccat ttcaggcttt gaccatgaca gcagatttgg agtccaggnc caaccaga      778
```

```
        <210> 408
        <211> 752
        <212> DNA
        <213> Homo Sapiens


        <400> 408
canattatta ggttnatnga anccatcctn tnggntnggn tgaaanacnt tcctnagtnt      60
nttttacngg accncaaaan atcagggncc tgcaaaatct cancaaatnt taggctcanc     120
```

```
aaaccaaaang ngattntnaa attaancaaa ancgttcagg ctcagggcag taaaaaaaag      180
caaactcgcc agnccntgca gctccaacct gncctcgtat cncctntgtt tttgcaggcn      240
ntttccgnga anagttggan anaaaacctg taaanggmaa aactgttcca ntggaatnga      300
ngttctgatg ttanaggnga nanaattcca agttttgagg ggagnggncc aaagagtacc      360
aactaagtnt ntananggcc cgtaaaacnc anantganca ggacntgaat cnttaaaaag      420
taaatggctg ntaaaagngg cnctcgggtc cgtgaatgac agagtgancn caggactcgn      480
ttccatccaa cgccantccg ggtccttcga caactgtngc ttgtaaaatc tattaacagg      540
gcctgntcct gantgccaca ggagccaatg ntaggagtcc gggaagagtc ccatttcact      600
ggggctttaa ccgtctgaat ctggtccttg gccncagaga gagcnttttt nagnaggccc      660
ncnttttggg ccccgttntt ttttccagca ngcttccctt taattcattc ncttcccggg      720
ctgggggttg caaaacntgc tggntgacct tt                                    752
```

        <210> 409
        <211> 736
        <212> DNA
        <213> Homo Sapiens

        <400> 409

```
ggcgtgtcaa aactaacgta cctgtcaagc tctttgcccg ctccacagct gtcaccacca       60
gctcagccaa gatcaagtta aagagcagtg agctgcaggc catcaagacg gagctgacac      120
agatcaagtc caatatcgat gccctgctga ccgcttgga gcagatcgct gcggagcaaa      180
aggccaatcc agatggcaag aagaagggtg atggaggtgg cgccagcggc ggcggcggcg      240
gtggtggtgg cagcggtggc ggtggcagtg gtggtggcgg tggcggtggc aacagccggc      300
caccagcccc ccaagagaac acaacttctg aggcaggcct gccccagggg gaagcacgga      360
cccgagacga cggcgatgag gaagggctcc tgacacacag cgaggaagag ctggaacaca      420
gccaggacac agacgcggat gatgggggcct tgcagtaagc agcctgacag gagcaatggc      480
caccagcagg tgaagggcat cgctgccccag gcctcaagcc gggcacccaa ccctggatgc      540
caccccccag cgggtaccag aggaaagctg cagcaggccg cctcctcccc caacgcatnc      600
cagccagtgc catgtcctct gcaggtggag ttactggcct actccttccc atgaacccct      660
ccttgtctgc acttgccagg ccagagggta gagcacangg gtttccccat acttaccttc      720
ccttcccagg acactt                                                      736
```

        <210> 410
        <211> 766
        <212> DNA
        <213> Homo Sapiens

        <400> 410

```
gggatccaat ctctttattg tcagggtccc ctccctgngg cccccgcca aacctataga       60
aaaaacccaa gcctgggagt gtcctgggga ggggaggtag tatggggaaa ccctgngct      120
ctaccctctg gcctgggcag tgcanacagg gagggctcat ggggaaggag taggccagta      180
actccacctg cagaggacat ggcactggct gggatgcgtt ggggggaggag gcgcctgctg      240
ccagctttcc tctggtaccc gctggggggt ggcatccagg gttgggtgcc cggcttgagg      300
cctggggcag cgatgccctt cacctgctgg nggccattgc tcctgtcagg ctgcttactg      360
caaggcccca tcatccgcgt ctgtgtcctg gctgtgttcc agctcttcct cgctgtgtgt      420
caggagccct tcctcatcgc cgtcgtctcg ggtccgtgct tccccctggg gcaggcctgc      480
ctcanaagtt gngttctctt gggggctgg tggcccggct gttgccaccg gcaccggcac      540
caccactgnc accgncaccg ctgcaccacc accgncggcg cccgncgntt ggcgccaact      600
tcatnaccct tcttcttgca tctggaatgg ncttttgctt ncgcancgaa ctgntccaaa      660
cgggttaanc agggcatcna tatttggact tgaactgggn caancttccg ncttgaangg      720
ccttgcaagc ttnaatggtc tttaacttga actttggctt gaacct                    766
```

        <210> 411
        <211> 812
        <212> DNA

<213> Homo Sapiens

<400> 411
```
ggcgtgtcaa aactaacgta cctgtcaagc tctttgcccg ctccacagct gtcaccacca      60
gctcagccaa gatcaagtta aagagcagtg agctgcaggc catcaagacg gagctgacac     120
agatcaagtc caatatcgat gccctgctga gccgcttgga gcagatcgct gcggagcaaa     180
aggccaatcc agatggcaag aagaagggtg atggaggtgg cgccagcggc ggcggcggcg     240
gtggtggtgg cagcggtggc ggtggcagtg gtggtggcgg tggcggtggc aacagccggc     300
caccagcccc ccaagagaac acaacttctg aggcaggcct gccccagggg gaagcacgga     360
cccgagacga cggcgatgag gaagggctcc tgacacacag cgaggaagag ctggaacaca     420
gccaggacac agacgcggat gatggggcct gcagtaagc agcctgacag gagcaatggc     480
caccagcagg tgaagggcat cgctgcccca ggcctcaagc cgggcaccca accctggatg     540
ccaccccca gcgggtacca gaggaaagct ggcagcaggc gcctcctccc ccaacgcatc     600
ccagccagtg ccatgtcctc tgcaggtgga gttactggcc tactccttcc ccatgagccc     660
tccctgtctg cactgcccag gccagagggt agagcacagg ggtttcccca tactacctcc     720
cctccccagg acactcccag gcttgggttt tttctatagg tttggcgggg ggccncaggg     780
aggggaccct gacaataaag agattggatc cc                                  812
```

<210> 412
<211> 857
<212> DNA
<213> Homo Sapiens

<400> 412
```
aaccatctta gcccccaaaa tgatgatgct ctggagacac gagctaagaa gtctgcatgc      60
tctgacatgc ttctcgaagg tggtcctact acagcttctg taagagaggc caaagaggat     120
gaagaagatg aggagaagat tcagaatgaa gattatcatc acgagctttc agatggagat     180
ctggatctgg atcttgttta tgaggatgaa gtaaatcagc tcgatggcag cagttcctct     240
gctagttcca cagcaacaag taatacagaa gaaaatgata ttgatgaaga aactatgtct     300
ggagaaaatg atgtggaata taacaacatg gaattagaag agggagaact catggaagat     360
gcagctgctg caggacccgc aggtagtagc catggttatg tgggttccag tagtagaata     420
tcaagaagaa cacatttatg ctccgctgct accagtagtt tactagacat tgatccatta     480
attttaatac atttgttgga ccttaaggac cggagcagta tagaaaattt gtggggctta     540
cagcctcgcc cacctgcttc acttctgcag cccacagcat catattctcg aaaagataaa     600
gaccaaagga agcaacaggc aatgtggcga agtgccctct gatttaaaga tgctaaaaag     660
actcaaaaact caaatggccc gaagttcgat gtatgaaaac tgatgtaaag gaatacactt     720
tcagaaataa aaagcacagt gctgcttctg gagacatgcn gacaagncttt ttttgctga     780
nccagcagnt ntggctgatg tggactgaaa cttttggcag aatgcaggat ttggatggac     840
tcctggcnaa agtctta                                                   857
```

<210> 413
<211> 790
<212> DNA
<213> Homo Sapiens

<400> 413
```
ctcaagtnga ttttattanc aaaaagngca aactattttg ancaaaagta aactatgagt      60
cacagcnttc agcaagacat canacncgga anagnganca atattcacta agtaaaatnc     120
agcanatgan atgtctntca catgtatatt naattattca tgcttttttca atagtctntt     180
agtcaacttt cagngtaatt tccacaaata tatagcagnt caaacncaaa tgcaggancn     240
caanggcaaa gttnggcaac tgtttngggc taattatgag tntgaaagaa anccttatat     300
cacagtttca cgttcatgta anccactgng caacatgaat gaatntttaa angngttgac     360
nctgaaatca angtncaact aangaaanta aagaanaaaa ggggggcttta aaatattngt     420
ngcnctacag tcgtatagta agaggcagaa aaaaatgaan gaattttaaa taatcttaca     480
cgtgtntaca gggccaggaa cgtaatgaat ccatgttaac ttaatttcat ttaaaattnc     540
```

```
atttgtagaa  gtcncncaac  agaaagatcc  atgcggttga  acagtgtgcc  tgtncttgac        600
aagtgagaga  agatccttct  ccaaaaggga  gattcagtct  agggntactt  cagttnttcc        660
catagnggct  acagggcana  atcttttttca  aaagcaattt  tctggtccct  aaatctacag        720
gcnctantgg  gacctgtaat  taaaancccc  caattttaag  gangattttt  aaaccccact        780
taagcttttta                                                                   790
```

        <210> 414
        <211> 1063
        <212> DNA
        <213> Homo Sapiens

        <400> 414

```
gnnnnntncn  gccanncnan  agnntgntca  cctccnagat  nnggatggn  ntggtgaccc         60
nggcnttgac  tctgnnnngc  gacntnttgc  tagtcttcag  gnctcctact  acaggctttg        120
taatganctn  nacttgnctt  gagacagcct  angggagacc  acggatgntc  tattannngn        180
gcangctgnn  ctatngcaan  ntgggnctna  nnctgnanaa  tcannngcng  ccatgnnaga        240
tnaatagaag  ctcatnntgt  cataaatggn  ccatgactta  taaatnaagt  ggactggata        300
tcttatgaca  gnagcnatnt  angcttngtg  ngnagttaan  gcttccacct  nnggangata        360
agaggncnac  cttgtntnan  ctnntgcngc  tgnaagancc  agaganannt  gccntgggag        420
attcatggcc  natgatagta  tatnatctct  tacaccanat  atgccttgct  gnatcncaaa        480
tctggacata  cacgntttcc  ccatctcaga  cttcnttgca  gcagctgctt  nccnacnnta        540
cccatgaacg  acanntgctt  acgntanagc  ntgaacnatn  tgatgagctt  cntcagccca        600
gacctcatca  tttcgagaag  cacatgtccc  tgcgtttcaa  cctatggatg  aggaaaaagnc       660
ctngngctta  aagctcttga  aaatccttta  cacnngaanc  nttctgcata  gcttnaatca        720
ctctgagntg  cccacatngn  gtnctggaag  gcttccggnt  annatggttc  cgggacctnc        780
aacccttccg  tttgaatnct  nacntgaccg  ganagggtnt  gcctgggttc  cttgngccnc        840
gaacttaacc  ntcacaattn  ggntgngant  tcntggtaac  ggcntaatct  nccccaggaa        900
ttggccgctg  cttcnacggg  aattaanggg  aatctttccc  atcccnctta  nnaccagtta        960
ggngcccntt  tttcaatttt  cngactcccg  gagctttttaa  aaaccggggg  ccttaggttn      1020
cttggatggc  nttggggggtn  gccccctttta  gggaattaaa  ggg                       1063
```

        <210> 415
        <211> 824
        <212> DNA
        <213> Homo Sapiens

        <400> 415

```
gtttgattnt  aacaaaannt  attatgcaca  aatnacnnag  gntanagact  ctnncatctn         60
anatnaaaat  ancagttata  attacacaca  taatataggt  accttataca  atgattccaa        120
taaatatcac  aggaaataca  ntgcattttc  aagntgnana  gacnaatact  tnctcattca        180
cagngnttga  catanganag  cctatttaca  tancnatctg  tataaagtca  tgctctnant        240
ancaggntat  ncagngctgn  gccancacaa  tgntttnaga  angtgaagaa  ccggncaaac        300
cactnntggn  gctggggatc  tgganaagcc  acctgnanaa  gcttcactct  gagcangact        360
cannaatgnc  ttgngcccct  taggtggcac  tggctgtgga  agtggttaag  ctgctgctga        420
actcaattcg  tggactgnag  aattaggaat  gggganccagg  cggttnggat  gaccattgcc       480
cactcnanca  natnccaaag  nnctnagaan  gggaacnctc  caancctgct  tnatggngat        540
taancatnct  tcttctttttg  cttaacccat  ggattananc  acancagcna  gtacngactt       600
ggntttaccc  ncttcngttg  gaaataagga  ttcttgatng  actaaannnc  agctggtnaa        660
aacntaactn  tccctcaatt  tagcnttatt  ntatgaancc  ggggcctant  ntcntgttca        720
aaaangngnt  tttaagttcc  ggtaatccta  ccggnaatta  nttgggggct  ntgaattcan        780
cnccccttana  anatttnggn  ttaccatttn  aatccaaagg  ccac                         824
```

        <210> 416
        <211> 838
        <212> DNA

-228-

<213> Homo Sapiens

<400> 416

```
ctcaaaagtg gaaaatatgt acaatctgta atgagctttt tcctgaaaat gtctatagtg      60
tgcacttcga aaaagaacat aaagctgaga aagtcccagc agtagccaac tacattatga     120
aaatacacaa ttttactagc aaatgcctct actgtaatcg ctatttaccc acagatactc     180
tgctcaacca tatgttaatt catggtctgt cttgtccata ttgccgttca actttcaatg     240
atgtggaaaa gatggccgca cacatgcgga tggttcacat tgatgaagag atgggaccta     300
aaacagattc tactttgagt tttgatttga cattgcagca gggtagtcac actaacatcc     360
atctcctggt aactacatac aatctgaggg atgccccagc tgaatctgtt gcttaccatg     420
cccaaaataa tcctccagtt cctccaaagc cacagccaaa ggttcaggaa aaggcagata     480
tccctgtaaa aagttcacct caagctgcag tgccctataa aaaagatgtt gggaaaaccc     540
tttgtcctct ttgcttttca atcctaaaag gacccatatc tgatgcactt gcacatcact     600
tacgagagag gcaccaagtt attcagacgg tcatccagtt tgagaaaaag ctnacctaca     660
aatgnatcca ttggcttggt gngnatacca gcaacatgga ncggctnaac tatcacttct     720
gnatctagnt cactggangg gccgtttggn aaggancccca aatgggccag dataagacaa     780
aaggcnccct ttngggttaa tcagncttcc aagtctngca cctgtgnaac gcacttac      838
```

<210> 417
<211> 880
<212> DNA
<213> Homo Sapiens

<400> 417

```
aagcacaata cagcaattta tttagatgct taaaatgaat acaaagggaa aataaagatc      60
acaaaattat acatactaca acagtgtgtc atatattaga tggtataaat gaatccacca     120
tgatggtgtt gaactaaaga taaaactaaa tatccaaaat gcagcactca ttggtttgct     180
gcttcaacac aacacacttt tatacagatc taaaaggtgt caaaattagt agctgcaaag     240
tcaattcttg catgtgattt tagcttaaaa gatttcagaa aacagatctg aaataccagt     300
ttttgttttt gacagctgta atgtcaagga tattcagaac aagaaaaatc ctataataca     360
agagagtcca gatatatatc ttacgtggct ggcctctgtt gcaagattgt acaaggttat     420
gtgcaaaaac taagtctgtc caaaaagtcc atactagcgc agttttgagc ttttgctagg     480
taaactagat agagcgttta ttacacagca agggcaacac taaaaaaaga aatctatgat     540
gggcacacag taacaggatc atgagcatca cttgaatagg tctaaaagac tgtcaaatat     600
acatttcaac tattcagaat gaatacatga aaaaaaatcg ctttttcccaa aggtctacta     660
tacncattan actgggagct tgnatgttgg gccctacact accatgggga attangttta     720
acacttntta aaaacatttg gccaatcatt tcncagangg gaaagaaatg ttgaaaaggc     780
cgataaaata aacccttggg ttttcctcgg gggattcatg gagtcacccg ccttaatggg     840
ttttcacatt taagttaccc gggcttggca aaaaaaggtt                           880
```

<210> 418
<211> 763
<212> DNA
<213> Homo Sapiens

<400> 418

```
agaagatggc ggaagcggaa tttaaggacc atagtacagc tatggatact gaaccaaacc      60
cgggaacatc ttctgtgtca acaacaacca gcagtaccac caccaccacc atcaccactt     120
cctcctctcg aatgcagcag ccacagatct ctgtctacag tggttcagac cgacatgctg     180
tacaggtaat tcaacaggca ttgcatcggc cccccagctc agctgctcag taccttcagc     240
aaatgtatgc agcccaacaa cagcacttga tgctgcatac tgcagctctt cagcagcagc     300
atttaagcag ctcccagctt cagagccttg ctgctgttca ggcaagtttg tccagtggaa     360
gaccatctac atctcccaca ggaagtgtca cacagcagtc aagtatgtcc caaacgtctg     420
tagaaattct tatggactgg aatcttcctc aaggcttact ttgttcctgg gatgcagtgg     480
tgcatagaag atagggcatt gactcactca gacctggctt gcccagcatg cattgcaaca     540
```

-229-

```
ataatgtgca agttattaaa gacatgagtg aattcgtgac agattgtcag aaaagaaaca    600
agagttttct acaacaaaaa actggcttat ggaacatata cttctgcttg agttgaatgt    660
gttggggctg agtgtaagaa aatgcaagct gcaaatctgg cttacatgtg gaaccaaagc    720
tggaaatgng tgctttaaan gcaacttgta aaattggatt tcc                      763
```

```
        <210> 419
        <211> 753
        <212> DNA
        <213> Homo Sapiens


        <400> 419
ggactattta cttttaatgt aattatcaat acagtcggtt taaatctacc attttgttgt     60
tggtttttcta tttgtttcat ttgttctctc ttcctttttt tcacctcttc aggattattt    120
tggattcact acttttttta nagngtcgtt ttaccactac tattggccta ttacctgtat    180
ctctttttt taatggcatt tctctaggat ttacaatatg catctttagc ttatagtatc      240
ttgaaatagt agngtaacac ttcacaaata gagtaaaaac cttataatct tccatttttc     300
ccttccttct tttgtgctat tgatgacnca tatttactcc tacagatatt ataaacaaat     360
tgatatacnc acattatcat ttttgcttta catactcaat tatcttttaa ataaaataaa     420
aattgaggag aaaatccgtt atattatcta cacatttact gtttccagca cttttcattt     480
ctttgngtag attcaaattt ctgncatctt cccttttgccc aaagaacttc ttttcatctt    540
tcttatagtt caggtctgct ggcaaccaat tagctcagcc tttggtttgc taaaaaagtt     600
catatattat cttgattttc aaatggnatt taagctctat ataggaattc ttaggtgact     660
ttaattcctt catcattggg aagangtcat aaagggcttg caaaggacta gaaatctgct     720
tacattttt natttggtaa tctttcttac cca                                   753
```

```
        <210> 420
        <211> 799
        <212> DNA
        <213> Homo Sapiens


        <400> 420
gaaaaacgct ttgataccaa gaattaaaaa tgcttgtcta caaacatctt cccttgcggt     60
tcgtgtaaat tcattagtgt gcttaggaaa gattttggaa tacttggata agtggtttgt    120
acttgatgat atcctaccct tcttacaaca aattccatcc aaggaacctg cggtcctcat     180
gggaatttta ggtatttaca aatgtacttt tactcataag aagttgggaa tcaccaaaga    240
gcagctggcc ggaaaagtgt tgcctcatct tattcccctg agtattgaaa acaatcttaa     300
tcttaatcag ttcaattctt tcatttccgt cataaaagaa atgcttaata gattggagtc     360
tgaacataag actaaactgg agcaacttca tataatgcaa gaacagcaga aatctttgga    420
tataggaaat caaatgaatg tttctgagga gatgaaagtt acaaatattg ggaatcagca    480
aattgacaaa gtttttaaca acattggagc agaccttctg actggcagtg agtccgaaaa     540
taaagaggac gggttacaga ataaacataa aagagcatca cttacacttg aagaaaaaca    600
aaaattagca aaagaacaag agcaggcaca gaagctgaaa agccagcagc ctcttaaacc    660
ccaagtgcac acacctgttg ctactgttaa acagactaag gacttgacag acacactgat    720
ggataatatg tcatccttga ccagccnttc tggtagtacc cctaaatctt ctgcttcaag    780
tctttcactt ctggtcctt                                                  799
```

```
        <210> 421
        <211> 770
        <212> DNA
        <213> Homo Sapiens


        <400> 421
gttcaatatg ggggacattc tggctcatga atctgaatta cttggactag tgaaagagta     60
tttagatttt gctgaatttg aagacacctt gaaaacattt tcaaaagaat gcaaaataaa    120
aggaaaacca ttgtgtaaaa cagtaggcgg atctttcaga gactccaaat cattgacaat    180
```

```
tcagaaggat cttgtcgctg catttgacaa cggagaccag aaggtgttct tcgatctgtg      240
ggaggagcac atttcaagtt ccatccgaga tggggactcc tttgcccaga agctggaatt      300
ctatctccac atccattttg ccatctatct tttgaagtac tctgtgggga gaccggacaa      360
agaggagctg gatgaaaaga tttcctactt caaaacctac ctggagacca aaggggcagc      420
cttgagccag accacagagt ttcttccttt ctatgccctt ccttttgttc ccaaccctat      480
ggtgcacccc tcatttaaag aactcttcca ggattcctgg actccagagt taaagttgaa      540
gttggaaaag tttctagctt taatatctaa agccagcaac acgccaaagc ttttaacaat      600
atataaggag aatgggacan agtaacaaag aaatcttgca gcagcttcac cagcagctgg      660
ntgaagcttg aaccgtaggt caatgacata cctcaaacgg naccataaga tccaggcccg      720
actaccacaa tctcantgga gtcacagcan aactggtggg attctcttga                 770
```

        <210> 422
        <211> 733
        <212> DNA
        <213> Homo Sapiens

        <400> 422

```
caaaangaan gctttatttt gaattttaaa aatacataca tcttacactg taatcaaaac       60
aaagcttaag aaagtcaatt cccgcttcct ttagccctga cttacactgg gtaccgttt       120
ctgtggccgc cgggggtgac ggncctttgc aggggctcat ccccgctcca ctgcacatta      180
gccagcccct tccgccttgt cttccccgng ttggtcatga tccccaggta ctccgnggtc      240
anaagcttct ctcctgagag ttctccgagc tggggctgga tcagttcgtc tttgtccana      300
tcggcttcca tgatgtcatg gncctcttca tcatcttcat cttcatcatc atcagattca      360
agaacaccat ctggtagctc ttcggaattt agctgcttga tgatgaattc tatctggcgg      420
atcatttcag cattgccttc tttgatgaag cagcgtagga tgtcttccat tcccattgct      480
cttgcttcct cacgaatgga tggancagaa aggatgctgt acagagctcc attcacatac      540
ggctgtatct catggttttc atggccaaga agatccgaaa ggactttgag caccgaggcc      600
tgccaccttg gcacacatgg tcttccctgn gctgcggagg cagaggttc atggagcaaa      660
agccaccgag tactccaacg gggnagccag acagggcagn cagggtcctt tcanaacatc      720
aacccagccc gaa                                                          733
```

        <210> 423
        <211> 862
        <212> DNA
        <213> Homo Sapiens

        <400> 423

```
catctgtcca gggtgcatcg agccgggagg gctcaccagc caggagcagc acgccactcc       60
actcccctc gcccatccgt gtgcacaccg tggtcgacag gcctcagcag cccatgaccc       120
atcgagaaac tgcacctgtt tccagcctg aaaacaaacc agaaagtaag ccaggcccag      180
ttggaccaga actccctcct ggacacatcc caattcaagt gatccgcaaa gaggtggatt      240
ctaaacctgt ttccagaag ccccccacctc cctctgagaa ggtagaggtg aaagttcccc      300
ctgctccagt tccttgtcct cctcccagcc ctggcccttc tgctgtcccc tcttccccca      360
agagtgtggc tacagaagag agggcagccc ccagcactgc ccctgcagaa gctacacctc      420
caaaaccagg agaagccgag gctcccccaa aacatccagg agtgctgaaa gtggaagcca      480
tcctggagaa ggtgcagggg ctggagcagg ctgtagacaa ctttgaaggc aagaagactg      540
acaaaaagta cctgatgatc gaagagtatt tgaccaaaga gctgctggcc ctggattcag      600
tggaccccga gggacgaagc cgatgtgcgt caggccagga gagacggtgt caggaaggtt      660
cagaccatct tggaaaaact tgaacagaaa gccattgatg tccangtcaa gtccaggtct      720
atgaacttca agccaagcaa ccnttgaagc agatcaagcc cctggaggca atcatggaaa      780
agggtgccgt ggcagcaaga caagggcaag aaaaatgctt ggaaatggcn gaagatcccc      840
acacnggaaa ccagcaggcc cg                                               862
```

        <210> 424
        <211> 859

<212> DNA
<213> Homo Sapiens

<400> 424

```
gagttatatt attactttat tttctttttt taaaatgtag cattaaagtc atccaacata        60
cagatattcc tatggctcct ggcacatttt actctctcta aagtcaggta ttttaattat       120
gagatgaaga aaatcatctc attaaaatgg caacatttct gataaatgtt tcatatttat       180
gtgatgggta attgactccc catctacccc tccagtccag agctacaaaa gacagtgcac       240
aaccacagct aacaggtggt gggggtgccc aagtagacag ggctgcagaa caagcaacgg       300
ggttaaactt ctcaaacaac aagcaacttc tttatttgta cagagtaaga atatagaaga       360
aaagcatcat tttccttttt agcccttta ttagtgtttt gcctccaccc aagttactgc        420
ataccaagca gctaataaaa accaactgac ttaaagtctc tgaaatgcat gcaacttaaa       480
attccctaaa gcacacatcg gttccgagtc tgattttac agggcagagg ctacggtgct        540
gctgggttac caggggtgtc tggcatgctg ctggggtttg aagtcgctgc tgctgnggct       600
tctggctgct gggtttctgt gtggggatct ttctgcattt ccagcatttt tcttggcctt       660
ggctgctgcc acggnaccca tcttcatgaa tgcctgcaaa tggctggacc tgnttcaaag       720
gttgctgggg ctggagttca ttagacctgg accttggccc tgggacatca aagggctttc       780
tggtcaaggt ttttccaaga agggcctgga accttcctgg acancggntt tttctgggcc        840
tggacgcnca attggggtt                                                     859
```

<210> 425
<211> 837
<212> DNA
<213> Homo Sapiens

<400> 425

```
cagaatggag gtggagtccc taaacaaaat gcttgaggag ctaagacttg aacggaagaa        60
actaattgag gattatgaag gcaagttgaa taaagctcag tccttttatg aacgtgagct       120
tgatactttg aaaaggtcac agcttttac agcagaaagc ctacaggcca gcaaagaaaa        180
ggaagctgat cttagaaaag aatttcaggg acaagaagca attttacgaa aaactatagg       240
aaaattaaag acagagttac agatggtaca ggatgaagct ggaagtcttc ttgacaaatg       300
ccaaaagctt cagacggcac ttgccatagc agagaacaat gttcaggttc ttcaaaaaca       360
gcttgatgat gccaaggagg gagaaatggc cctattaagc aagcacaaag aagtggaaag       420
tgagctagca gctgccagag aacgtttaca acagcaagct tcagatcttg tcctcaaagc       480
tagtcatatt ggaatgcttc aagcaactca aatgacccag gaagttacaa ttaaagattt       540
agaatcagaa aaatcgagag tcaatgagag attatctcaa cttgaagagg aaagagcttt       600
tttgcgaagc caaaacccaa agtctggatg aagagcagaa gcnacagatt ctaagaactg       660
ggagaagaaa gtaaatgaac caagagactc agcaggaata ttatgaaagg gaacttaaaa       720
anctgcaagt agaatggaag aagaggggct taattaacga nggccattct aagacttttg       780
gaagaattag cttggaacnc cttttggcaa ttgaacttgt cncaggtaat gccattt         837
```

<210> 426
<211> 724
<212> DNA
<213> Homo Sapiens

<400> 426

```
gattctaaca aaatttatta tgcagtaatt acaaaggtta aagactcttc catctcaaat        60
aaaaataaca gttataatta cacacataat atagtacctt atagaatgat tccaataaat       120
atcacaggaa atacagtgca ttttcaagtt ggagagacaa atactttctc attcacagtg       180
tttgacatag aaagcctat ttacataaca atctgtataa agtcatgctc ttagtaacag        240
tctatacaga gctgtgccaa cacaattctt tcagaatgtg aagtaccggg caaaccactc       300
ctggcgctgg ggatctggag aagccactgg agaagcttca ctctgagcag gactcaaaaa       360
tgtcttgggc cctttaggtg gcactggctg tggaagtggt ttgctgctgt tgaactcaat       420
atcgtggact ggagaattag gaatgggatc caggcggtta ggatgtccat tgcccactcc       480
```

```
accagattcc agagcactta nattgggaac actcacaaac ctgtttgttg gtgatttatc     540
attcttcttc ttttgcttag ccaatggatt aataacacca acagtaggac ttgagttaaa     600
cactttggtg aaagttagtt tctcgaattg actaattcca gctgataaaa cttattatcc     660
tcaattagtt tctttatgan ctgggcctct ttctgtaagc atggctttta attctggaat     720
catc                                                                  724
```

        <210> 427
        <211> 981
        <212> DNA
        <213> Homo Sapiens

        <400> 427
```
aaaaacaaaa taaaacaaaa aanaaaaant atatatatnt atatatatat atatatatac      60
acacacacac acacaactca aagagttana atcattacnt ncaaatgaaa gtcgtaatga     120
tagatgatga tagntncaat gaanctgnga ncatanatta angaaacana naacantncn     180
aaaggtccac aaatctggtc ctatgaaaag agtaaaatta ccaagactng gtgaaaganc     240
ccannaaaan ncanagagag anagagagag agagaganac anagagagag aganaaaggg     300
aaggcacacn taancnatat cagcaataaa angggnnact ttantacana ttctgcaanc     360
attannnnna taatganagg atattatgaa cagttgtatg gcnatatgtt tgaaaactta     420
gatgccgata tgtttgaaaa cttaaatgaa acggaaaaat tccttgaaga accacaantt     480
aaatttgaca caggtagaaa atntgaatgc agttngncct tcagtatctg tggggaaatc     540
ggttncagaa ccactccccc antaccnaaa tttataattg ctcaagttcc tgatataaaa     600
tggcaaagta tttgcatata ncctatccct acccttttac atactttaaa taacctntga     660
gttncttnat tataccaaac ataatgtaca tttctgtggc aaatcgntnn taatattgga     720
ttttnaaaat tatnttantt ttggaatagg nngtantatt tcctgggggct tttttttttcc    780
ccaaatattt tntaattccc caattnggtt ggaatcttgg gaaccccatg gnggggancc     840
catangattt tgggaanggn ccaacttggg gccttngtaa cttttttaaag aaatngggaa     900
ttctttgntn aanaattctt ncncccaaag aaaacccctt tggcccccana agttntttna     960
aatggggaaa tttncccaaa c                                               981
```

        <210> 428
        <211> 655
        <212> DNA
        <213> Homo Sapiens

        <400> 428
```
ataggacaac atgaacattg ttgagtcact gaagctaaac caaacttgct tttctgtaat      60
aaacccaatt tggtcatgat ttaatatttt ttggatcgct ctggatttgg tttgctaata     120
ttttattcat ccaagaaata ttcattagag aaattggcat gggattttttt tttcattgta    180
atgtccttgt caggtatcaa ggcttttttca gcctgataaa gcatattaag aaatgcttcc    240
tcttttccta ttctctggaa aagattgtgt aatattgctg ttactacttc ctgtaatgtt     300
tggtgaaatt cacaattgaa gacatctggg cctagcgtgt tctttgtagg aagaatatta     360
agaaagaatt ccatttcttt aaaagttacg agcacagttg gccttccaga tctatggatc     420
ccacatgagt tccagattca accaattgtg tattaaaaat atttgggaaa aaaagccaca     480
agaaataata caactataca aataatatat attttaaaa tacaatataa caacgattta      540
cacagaatgt nccattatgt taggnattat aagtaactca gaggntattt aaaagnatgtg    600
agaggnnatg gataggctat atgccaaata ctttgccant cttatantca gggaa          655
```

        <210> 429
        <211> 788
        <212> DNA
        <213> Homo Sapiens

        <400> 429
```
gagcagcaga gatttttgct gtgagaatta attaccagta acagttcaat atgggggaca      60
```

```
ttctggctca tgaatctgaa ttacttggac tagtgaaaga gtatttagat tttgctgaat      120
ttgaagacac cttgaaaaca ttttcaaaag aatgcaaaat aaaaggaaaa ccactgtgta      180
aaacagtagg cggatctttc agagactcca aatcattgac aattcagaag gatcttgtcg      240
ctgcatttga caacggagac cagaaggtgt tcttcgatct gtgggaggag cacatttcaa      300
gttccatccg agatggggac tcctttgccc agaagctgga attctatctc cacatccatt      360
ttgccatcta tcttttgaag tactctgtgg ggagaccgga caaagaggag ctggatgaaa      420
agatttccta cttcaaaacc tacctggaga ccaaaggggc agccttgagc cagaccacag      480
agtttcttcc tttctatgcc cttccttttg ttcccaaccc tatggtgcac ccctcattta      540
aagaactctt ccaggattcc tggactccag agttaaagtt gaagttggaa aagtttctag      600
ctttaatatc taaagccagc aacacgccna agctttaac aatatataag gagaatggac      660
aaagtaccaa gaaatcttgc agcagcttca ccacagctgg ttgaagctga acgtaggtca      720
gngccttcct taaacgggcc aattaagaat ccaggccgac taccacaatc ttantggggg      780
tcccagca                                                              788
```

```
        <210> 430
        <211> 655
        <212> DNA
        <213> Homo Sapiens


        <400> 430
caaaatgaat gctttatttt gaattttaaa aatncatacn tnttacnctg naatcaaaac       60
aaagcttaan aaagtcaatt cccgnttcct ttanccctga cttacnctgg gtncccgttt      120
ntggggccnc cgggggngac gggcctttgc aggggctcat ccccgntcca ctggacatta      180
nccagcccct tccgccttgg cttccccgng ttggtcatga nccccaggtn ctccgnggtc      240
aaaaagcttnt ntcctgaaag ttctccganc tggggctgga tcanttcgtc tttgnccaaa      300
ncggnttcca tgatgncatg ggcctnttca tcatcttcat tttcatcatc atcanattca      360
anaacnccat ntggnanctt ttcggaattt aactgcttga tgangaattc tatntggngg      420
ancatttcag cattgccttn tttgaagaac cancgtagga nggtttccat tcccattggt      480
nttgnttcct cacgaatgga tggaacanaa aggatgctnt acananctcc attcacatac      540
ggntgnatnt catggntttc atggccaana anaatcccaa aggctttgag cccaggnctg      600
gcccttggca caaatgttnt tcctggcttc cgaaggccaa ggttcattga ccaaa          655
```

```
        <210> 431
        <211> 844
        <212> DNA
        <213> Homo Sapiens


        <400> 431
ggaagaagga agaggtaact ataactaccc aatattgcag ccatggagtc catgcttaat       60
aaattgaaga gtactgttac aaaagtaaca gctgatgtca ctagtgctgt aatgggaaat      120
cctgtcacta gagaatttga tgttggtcga cacattgcca gtggtggcaa tgggctagct      180
tggaagattt ttaatggcac aaaaaaagtca acaaagcagg aagtggcagt ttttgtcttt      240
gataaaaaac tgattgacaa gtatcaaaaa tttgaaaagg atcaaatcat tgattctcta      300
aaacgaggag tccaacagtt aactcggctt cgacaccctc gacttcttac tgtccagcat      360
cctttagaag aatccaggga ttgcttggca ttttgtacag aaccagtttt tgccagttta      420
gccaatgttc ttggtaactg ggaaaatcta ccttccccta tatctccaga cattaaggat      480
tataaacttt atgatgtaga aaccaaatat ggtttgcttc aggttctga aggattgtca      540
ttcttgcata gcagtgtgaa aatgggtgca tggaaatatc actcctgaaa atataatttt      600
gaataaaagt ggagcctgga aataatgggg ttttgatttt tgngtatcat caaccaatcc      660
ttctgaacaa gagcctaaat ttccttgtaa agaatgggac ccaaatttac cttcattgng      720
tcttncaaat cctgaatatt tggcttctga atcctacttt ctgngaactt gtgaaaccag      780
ccagtggata tgggattcnt ttaggaactg gtatggaatg ccgggatttt aataaaaggg      840
gaaa                                                                  844
```

```
        <210> 432
```

```
<211> 807
<212> DNA
<213> Homo Sapiens

<400> 432
atcaaagcta aaatttattt ggtgcatact cctcttgata tcaggtatgt tcgcatatac     60
ctttttcttt catgtgtaaa aacaaccatg tgaggtattt tacaggtcaa aagaaaacaa    120
aaactacttc cttattcagt gtaaaggagg cttataagca ttccaaaata aaaacaaaca    180
aaaaccagac aagtacatag tctatttcca tttcctttta tacatcctct ctatatatca    240
cacatttagc aataggagaa tagagaacta attcaaatgc aagggaatct ttttttgtaga   300
ttctgttgac agatgctctt taacctaaac attttctact ctaaacataa cggacttaat    360
tgtcttcagt acgtgaaata attttaaggt gatctagtac tttgaaaatt tcattcactt    420
aagaacactt aagctgaaaa atagcactat ttttcagagg caatttctca acagaaaag    480
gcaatggtaa cagttcaatt gatggaaatg gttgaaataa aatacctgaa gtagaaaaaa    540
ggtgtaggaa caattttgta aaaacatagc accattacct caacgaatga acaaatttta    600
catactggat ttttttcaaa tgacttattt tcatatttag tagttcaagg tctataagct    660
ggtatattaa gctttctttc tggttaagag ntcaacactt acatcatggt attttacnaa    720
attaaaaacc aatttcttaa ataaaccgng gctcctaaaa tggtaccaag gaaaaattct    780
tcaataccta atttaattcc ataagga                                        807
```

```
<210> 433
<211> 866
<212> DNA
<213> Homo Sapiens

<400> 433
cttcagccca gatgcagaat gggggccct ccacacccc tgcatcaccc cctgcagatg      60
gctcacctcc attgcttccc cctggggaac ctccctgtt agggacctttt ccccgggacc    120
acacctcttt ggcactagtt cagaatggtg atgtgtcggc cccctctgcc atactcagaa    180
caccagaaag cacaaaaccg ggtcctgttt gtcagccacc agtgagtcag agccgctccc    240
tgttttcttc tgtcccgtcc aagccaccaa tgtctctgga gcctcaaaat gggacgtatg    300
caggaccagc gccagcattc cagccatttt tcttcactgg agcatttcca tttaatatgc    360
aagagctggt actcaaggtg agaattcaga acccatctct tcgagaaaat gatttcattg    420
aaattgaact ggaccgacag gagctcacct accaagagtt gctcagagtg tgttgctgtg    480
agctgggtgt taatccagat cangtggaga ngatcagaaa gttacccaat actctgttaa    540
ggaaggacaa ggatgttgct cgactccaag atttccagga gctggaactg gttctgatga    600
taagtgaaaa taattttctg ttcanaaatg ctgcatccac actgactgaa aggccttgct    660
ataacaggag agcttcaaaa actgacttac taatgcacag ggactttat cactggagta     720
ttatgacagt gngcatcacc ttntgggccc aaggaccaag ccattggtct aaaaggcctc     780
aaaatgcccc ggganggcct ctggtggcca tggcattagt atatactaac catcattctg     840
gccaggtaag gaagcccctg gacccc                                         866
```

```
<210> 434
<211> 764
<212> DNA
<213> Homo Sapiens

<400> 434
caaaataacc tttatttttg atacaaaaat aaagatgcta actcctttag ctcagtttcc    60
cacaataacc tttaaaatag caacagattc agtctcaaaa attgctttc atttgtagtg    120
gaaaatgaaa gtggagaaca tggaacagca atatttgngc tcttctcata ggatgcagtt    180
acacacacat atgactggaa tcacttcaga gtaaaaaaaa agtgggctgg gtgcagtggc    240
tcacacctgt aatcccagca ctttgggagg ccaaggacag gagcatcact taaggccaga    300
agtttgagac cagcctgggc cacatagtga gaccctgtct ctatgggcgg ggtgggggtg    360
ggggcattg taaaaaagca gttgttcttt tanaaggcat cagagagccc tntagtgacc    420
```

```
acgaagggga gttaatgcag agatgactcg agacagagaa gcagtcatga gtgtttacaa    480
aggaaaaagt gagggaggga aagctctttt ggttaacagc atatttacaa ttagttaact    540
gnattcttaa atacttttaa cctgagtaac atttataaat atgttatagg aaacctcaca    600
gtcacaagtc acactagaat ccatctgtcc agtatctggg ctttccccac accagaatcc    660
atctgtccag tatctgggct ttcccgagtc ttcctcttct cataagttcc caanggcagc    720
anaagtgtga agcatgcaca ccaaggaaaa acgcattcca gccc                     764
```

```
        <210> 435
        <211> 834
        <212> DNA
        <213> Homo Sapiens


        <400> 435
agattttgtt aattttccta caaaaaatgg atttgctact aaccaaaacc cctcctgatg      60
agataaagaa cagtgttcta cccatggttt acagagcact agaagctcct tccattcaga     120
tccaggagct ctgtctaaac atcattccaa ccttttgcaaa tcttatagac tacccatcca   180
tgaaaaacgc tttgatacca agaattaaaa atgcttgtct acaaacatct tcccttgcgg     240
ttcgtgtaaa ttcattagtg tgcttaggaa agattttgga atacttggat aagtggtttg     300
tacttgatga tatcctaccc ttcttacaac aaaattccatc caaggaacct gcggtcctca    360
tgggaatttt aggtatttac aaatgtactt ttactcataa gaagttggga atcaccaaag     420
agcagctggc cggaaaagtg ttgcctcatc ttattcccct gagtattgaa aacaatctta     480
atcttaatca gttcaattct ttcatttccg tcataaaaga aatgcttaat agattggagt     540
ctgaacataa gactaaactg gagcaacttc atataatgca agaacagcag aaatctttgg     600
atataggaaa tcaaatgaat gtttctgagg agatgaaagt tcaaatattg ggaatcagca     660
aattggcaaa gttttttaaca acattggagc agaccttntg actggcagtg agtccgaaaa    720
taaagangac gggttacaga ataaccttaa aagagcatcc ttaccacttg gaggaaaaac     780
caaaatttgc caaaagaacc aggaccggcn ccgaagctgg aaaagccgca ggct           834
```

```
        <210> 436
        <211> 812
        <212> DNA
        <213> Homo Sapiens


        <400> 436
acagaagtaa agtttattac atttgaaaca atacagcaga aacctcaaaa gtttactcat      60
aaatatagtt taattcttac aaatcttctt ttgaaaatgc aattcatata tgctgcaacc     120
tcagaagttt gaatttgaaa tgaaatatga aggtagtagt cagggaagtc acatcagagt     180
gccttgtcaa atatccaaac aaatcagcac atacctcttc cttgatacag gaggaaaaaa     240
gtgattctaa atatatccaa gtgaatgcag aaaaatacat tactatttga ggcagaccat     300
gctaaaatat aatttacaat gattagtttg cacttaagat ggttaataac gcatttaaac     360
caatgaaatg aaggttaagt tgaatttttgt agtatttgct cagtctctgt actaaacaat    420
agttcatctg aaaagtttgg aaaaagcaaa taacctgata cttctctttta tgcttatcat    480
tttctcactg tcatcttaaa tgcaaacaaa tcaatacagc atcaagattt tttacatatt     540
aaaatgaaga ctaatgactc atagactgng taccatatag tacttaatag atgagcttgc     600
aatgaccatc acctcaattt tttaaataac accaagatcc acaagccaaa ataaacattt     660
gattaaaaag ttatggtatt caagataact cagtttcctt tttctctttg agattgggna    720
anggctgggt ctttaaaaaa ccctggaaaa gggagttggg taaagaggga aaaaaatcct     780
tcaangcttt taaaaaaact tcnactgggt ta                                  812
```

```
        <210> 437
        <211> 842
        <212> DNA
        <213> Homo Sapiens


        <400> 437
```

```
gtggaagagg cgtacctatt tgcaaagtgc agagcaggca tggattgcca attctggaac        60
agagcaaagc cccaacttgc cctccactgg tgatgtcaca cccacccatg aagagcctgc       120
ctctagggtt gttgaatgtt gggtcacgaa gatctcaacc tggccaaaga agagaaccca       180
gaaagatcat cacagtttct gtaaaagaag atgtacacct gaaaaaggca gaaaatgcct       240
ggaagccaag ccaaaaacga gacagccaag ccgatgatcc cgaaaacatt aaaacccagg       300
agcttttag aaaagttcga agtatcttaa ataaaattgac accacagatg ttcaatcaac       360
tgatgaagca agtgtcagga cttactgttg acacagagga gcggctgaaa ggagttattg       420
acctggtctt tgagaaggct attgatgaac ccagtttctc tgtggcttac gcaaacatgt       480
gtcgatgtct agtaacgctg aaagtaccca tggcagacaa gcctggtaac acagtgaatt       540
tccggaagct gctactgaac cgttgccaga aggagtttga aaaagataaa gcagatgatg       600
atgtctttga aagaagcag aaagaacttg aggctgccag tgctccagag gagaggacaa       660
ggcttcatga tgaactggaa gaagccaagg acaaaagccc ggcggagatc cattggcaac       720
atcaagttta ttggagaact cttttaaact caaaatgctt gacttgaagc catcattgca       780
tgactgtgtg gtgaagctgc ttaagaaccn ttgatgaaga atccctggaa tggcctgtgt       840
cg                                                                      842
```

          <210> 438
          <211> 678
          <212> DNA
          <213> Homo Sapiens

          <400> 438
```
aaactngcan tgtntgtntt tattttgtnc tttatatttt caaagngaaa agaaatanna        60
ctgagncaat ntcttttgt nttttaaaan atttgtncta tgtatttaca ngccttaaag       120
nngctctaaa gatntcaaga gnattaanag nactttntc agggnagcac tnttttttttt      180
ttaaacantt nttggngttc tgtggnccac annatttcct tntgtntcaa ngtnatgtat       240
gtnttgatna cnatngngat nttttaaann ttntgaanca agctgagagg cnngcanaaa       300
gatntgangc cnnaaaaaaa aaaatctttt ttaccttgtn caccccaaac ttttttcaaat      360
ctggnctaaa tgctntacct taaaacanac atgagggca tcttgaaggg gagggaaant       420
tatttctctg cntttctatn atacangtng tttacanaaa ctgngaatta naaaattaca      480
ctggnatttg cngaccttaa aataaattaa aagtnctcaa ctntttttttt ttttgntaaa     540
cntttttta agnatgannc cntggttaaa aagaaaagnt ttaaaccgaa aatattttct       600
ataaataata cctggatttt ggntttaggg ccccgccct aaggnttgna ggttactttt       660
ntccnangac cttttttcc                                                    678
```

          <210> 439
          <211> 826
          <212> DNA
          <213> Homo Sapiens

          <400> 439
```
gaccctttac caacaaatga aaatgatgat gatatatgca agaaaccctg tagtgtagca        60
cctaatgata ttccactggt ttctagtact aacctaatta atgaaataaa tggagttagc       120
gaaaaattat cagccacgga gagcattgtg gaaatagtaa aacaggaagt attgccattg       180
actcttgaat tggagattct cgaaaatccc ccagaagaaa tgaaactgga gtgtatccca       240
gctcccatca ccccttccac agttccttcc tttcctccaa ctcctccaac tcctccagct       300
tctcctcctc acactccagt cattgttcct gctgctgcca ctactgttag ttctccgagt       360
gctgccatca cagtccagag agtcctagag gaggacgaga gcataagaac ttgccttagt       420
gaagatgcaa aagagattca gaacaaaata gaggtagaag cagatgggca aacagaagag       480
attttggatt ctcaaaactt aaattcaaga aggagccctg tcccagctca aatagctata       540
actgtaccaa agacatggaa gaaaccaaaa gatcggaccc gaaccactga agagatgtta       600
gaggcagaat tggagcttaa agctgaagag gagctttcca ttggcaaagt acttgaatct       660
gaccaggata aaatgagcca ggggtttcat cctgaaagag accccntggg cctaaaaaaaa       720
gtgaaaagct gtggaagaaa atggagaaga actgagccag accgtaatgg ggcctgaaag       780
ggttctgang gtgaaggaat agatgcttaa ttcangcttc cccaga                       826
```

```
        <210> 440
        <211> 689
        <212> DNA
        <213> Homo Sapiens

        <400> 440
aaatatttgt tctatgtatt tacaagcctt aaagttgctc taaagatttc aagagtatta      60
agagtacttt tctcagggta gcactttttt tttttaaac aattcttgga gttctgtggt     120
ccacagcatt tccttctgtt tcaatgttat gtatgttttg attactattg tgattttta     180
aattttctga agcaagctga gaggcaggca gaaagatttg atgccaaaaa aaaaaaaatc     240
tttcttacct tgttcacccc aaactttctc aaatctggac taaatgctat accttaaaac     300
aaacatgagg tgcatcttga aggggaggga aatttatttc tctgcttttc tattatacaa     360
gttgtttaca gaaactgcaa attaaaaaat tacactggca tttgcagtcc ttaaaataaa     420
ttaaaagttc tcaacttttt tttttgcta aacattttt taagtatgag tccttgttta     480
aaaagaaaag attaaaacag aaaatatttt ctataaataa tacatgtatt ttggttttag     540
tgctcccgcc ctaaggtttg aagtttactt ttatccagta cctttttcct ccatgatcac     600
cttttttct ctttcccctn ttccactcgg gcacacgtgg ggggtttctg cnanaattgg     660
ccttgctgca ctgngaatgg gcnaaaacc                                       689

        <210> 441
        <211> 883
        <212> DNA
        <213> Homo Sapiens

        <400> 441
cttttttatcc tggaccagga cctggggact tccccaatgc ttatggaacg cctttttacc      60
caagtcagcc ggtgtatcag tcagcaccta tcatagtgcc tacgcagcaa cagccgcctc     120
cagccaagag agagaaaaaa actataagaa ttcgggatcc aaaccaggga ggtaaagaca     180
taacagagga gattatgtct ggaggtggca gcagaaatcc tactccaccc ataggaagac     240
ccacgtccac acctactcct cctcagcagc tgcccagcca ggtccccgag cacagccctg     300
tggtttatgg gactgtggag agcgctcatc ttgctgccag cacccctgtc actgcagcta     360
gcgaccagaa gcaagctcaa atagctataa ctgtaccaaa gacatggaag aaaccaaaag     420
atcggacccg aaccactgaa gagatgttag aggcagaatt ggagcttaaa gctgaagagg     480
agctttccat tgacaaagta cttgaatctg aacaagataa aatgagccag gggtttcatc     540
ctgaaagaga cccctctgac ctaaaaaaag tgaaagctgt ggaagaaaat ggagaagaag     600
ctgagccagt acgtaatggt gcttgagagt gtttcttgag ggtgaaggaa tagatgctaa     660
ttcaggcttc acagatagtt ctggtgatgg gggtacattt ccatttaaac cagaatnctg     720
gaagcctact ggtacttgaa ggtaagaaca gtatgaccag ggagtttctg gtggactttc     780
cagttcatgc ctggctgnat tccaaaancc naagggcctg gcttctatta anggatgngg     840
ttnttgacag gatcaaccaa ncccaaatgg ccaatgggga act                       883

        <210> 442
        <211> 777
        <212> DNA
        <213> Homo Sapiens

        <400> 442
gctaaacatt ttttaagta tgagtccttg tttaaaaaga aaagattaaa acagaaaata      60
ttttctataa ataatacatg tattttggtt ttagtgctcc cgccctaagg tttgaagttt     120
acttttatcc agtacctttt tcctccatga tcacctttt ttctcttcc cctctcccac     180
tcgtgcacac gtggggggttt ctgcgagaat tggccttgct gcactgtgat tggcgaagac     240
gtgaaacttt ttaaaaaaat acttaaattg tttcttttgt ttcattttgt gtatttgaag     300
ttttagttat cctcagactc ctcttctgct tcccgcagcc acgtgaagaa tgccgtgaca     360
gatttcagag ccacgccctt cccattctgc tctgcagggt ccttgctgct ctcccatttg     420
tagaaggcat cctcggagat cacctcctcg tcatatagac aatcaaaaaa catccgcagc     480
```

```
aaattggcag gttgatcaag ttttactatc gatgcttgta gtgcataaag tgcttgcagt      540
tccttctctg natctgagtc taggtacttg agtaagatcg gcactctctg cttgaaacag      600
cagtgtccac ttcttgaang tagaagaagt cggctattaa tagctggttt acaaacagca      660
gtcatttaaa gctctaagga atggtaggtg aactcntctg ggatttcggc taagaataag      720
cccttancc aggccaaaga acctggtcan tcaattcgct tttggccctc caataaa         777
```

```
          <210> 443
          <211> 875
          <212> DNA
          <213> Homo Sapiens


          <400> 443
taacacagtg aatttccgga agctgctact gaaccgttgc cagaaggagt ttgaaaaaga      60
taaagcagat gatgatgtct ttgagaagaa gcagaaagaa cttgaggctg ccagtgctcc      120
agaggagagg acaaggcttc atgatgaact ggaagaagcc aaggacaaag cccggcggag      180
atccattggc aacatcaagt ttattggaga actctttaaa ctcaaaatgc tgactgaagc      240
catcatgcat gactgtgtgg tgaagctgct aaagaaccat gatgaagaat ccctggagtg      300
cctgtgtcgc ctgctcacca ccattggcaa agacttggac tttgaaaaag caaagccacg      360
tatggaccag tactttaatc agatggagaa aattgtgaaa gaaagaaaaa cctcatctag      420
gattcggttc atgcttcaag atgttataga cctaaggctg tgcaattggg tatctcgaag      480
agcagatcaa gggcctaaaa ctatcgaaca gattcacaaa gaggctaaaa tagaagaaca      540
agaagagcaa aggaaggtcc agcaactcat gaccaaagag aagagaagac caggtgtcca      600
gagagtggac gaaggtgggt ggaacactgt acaaggggcc caagaacagt cgggtactgg      660
acccctcaaa antcctaaaa atcactaagc ctacaattga tgaaaaaant cactggacct      720
aaagccagct aggcagctgg ggaaaaggca gcagtggtgg accaangcaa gtgaaactga      780
gccntacggc aagtgcttnc agttaaacag atctntgncc tgaaccttca gaaccttang      840
gtcccgccat cacgcctgta aagttggatt cccga                               875
```

```
          <210> 444
          <211> 756
          <212> DNA
          <213> Homo Sapiens


          <400> 444
cttttaaact tgcaatgntt gnctttattt tggtctttat attttcaaag ngaaaagaaa      60
tagtactgag tcaatttctt tttggttttt taaatatttg gtctatgnat ttacnagcct      120
taaagttgct ctaaagattt caagagtatt aagagtactt ttctcagggt agcacttttt      180
ttttttaaa caattcttgg agttctgngg nccacagcat ttccttctgn ttcaatgnta      240
tgtatgtttt gattactatt gggatttttt aaatttctg aagcaagctg anaggcaggc      300
ngaaagattt gatgccnaaa aaaaaaaaaa aatctttntt accttggtca ccccaaactt      360
tntcaaatct ggactaaatg ctataccta aaacaaacnt gaggggcatn ttgaagggga      420
gggaaattta tttctctgnt tttctattat acnagttgnt taccgaaact gnaaattaaa      480
aaattaccct ggcntttgca ggccttaaaa taaattaaaa gntctcaact tttttttttt      540
gccaaacatt ttttaagta tgagnccttg nttaaaaga aaagattnaa nccgaaaata      600
ttttctataa ataatacntg nattttggtt ttaaggctcc cgccctaang nttgaaggtt      660
actttatcc nagnnccctt tttccctcca tgaanacccc ttttttcnc ctttcccctt      720
ttcccacttn gggcccccc tnggggggtt tttgcg                              756
```

```
          <210> 445
          <211> 783
          <212> DNA
          <213> Homo Sapiens


          <400> 445
cagaaaatgg tgcttaccaa ctacatgttc cctcaacagc caaggactga ggatgttatg      60
```

```
tttatatcag ataatgaaag ttttaaccct tcattgtggg aggaacagag gaaacagcgg      120
gctcaagttg catttgaatg tgatgaagac aaagatgaaa gggaggcacc tcccagggag      180
ggaaatttaa aaagatatcc aacaccatac ccagatgagc ttaagaatat ggtcaaaact      240
gttcaaacca ttgtacatag attaaaagat gaagagacca atgaagactc aggaagagat      300
ttgaaaccac atgaagatca acaagatata aataaagatg tgggtgtgaa gacctcagaa      360
agtactacta cagtaaaaag caaagttgat gaaagagaaa aatatatgat aggaaactct      420
gtacagaaga tcagtgaacc tgaagctgag attagtcctg ggagtttacc agtgactgca      480
aatatgaaag cctctgagaa cttgaagcat attgttaacc atgatgatgt tttttgaggaa      540
tctgaagaac tttcttctga tgaagagatg aaaatggcgg agatgcgacc accattaatt      600
gaaacctcta ttaaccagcc aaaagtcgta gcacttagta ataacaaaaa agatgataca      660
aaggaaacag attctttatc agatgaagtt acacacaata gcaatcagaa taccagcaat      720
tggtcttctc catctcggat gtctgattca gttctcttaa tactgatagt agtcaagaca      780
cct                                                                    783
```

```
        <210>  446
        <211>  866
        <212>  DNA
        <213>  Homo Sapiens

        <400>  446
agattacaac acacatacaa taagtgaatt ttatcaaaat acagcacatt tcttctacta       60
tatccataaa aatcaattcc tatgtaaata gtactgaaaa tcaactaaaa tgagttaaaa      120
tttacaaaga gttgttaaag ggtttcaatc aaaattatta aaactataca gtacaataac      180
caattgataa catcttgaaa gaagtgcaat atttgagttc acatattttt aaaagtgctg      240
cctacttact ctgactagca agaatggaaa gtgagtccaa ctcacttttg caaaaataat      300
gttggttggt gttttaagct agtcttataa aagtcttaat taaaatcaag gttgataaac      360
aaagcataac agattaaaaa ttcccaaatt gcatttctta gtaaataaaa atgaagtgca      420
ataaccaaat attgctctaa tgaaaggttc cagactagcc tcaactaaac agttattggt      480
cttctatggc actttttttct ggtccaaata accatgcatt aatccttacc attacatgtt      540
actcaaattt tatttgatta catagaacaa aaacaaataa aattaatggt ctggataaac      600
aaaattaata aacctctatc atcaaatatt tgttacagta actaggaaca aagaaaggca      660
gtttggtggg taaaacacta ttacactgat ccccatagga aacccccttta aagactctgg      720
aagtgttgag ttcacattta atggtacctg tagaaacagn cctttatttg gacacctta      780
cccactggca ngccctaang gacccatccc tttgctctat aacttttcac aagcaattct      840
ctaatcctgg gccagtttnc aaaagc                                          866
```

```
        <210>  447
        <211>  789
        <212>  DNA
        <213>  Homo Sapiens

        <400>  447
gtcacgttgg aatgcaaatt gagcacatca ttgaaaacat tgttgctgtc accaaaggac       60
tttcagaaaa attgccagag aagtgggaga gcgtgaaact cctgtttgtg aaaactgaga      120
aatcggctgc acttcccatc tttttcctcgt ttgtcagcaa ttgggatgaa gccaccaaaa      180
gatctttgct taataagaag aaaaaagagg caaggagaaa acgaagagaa agaaattttg      240
aaaaacaaaa ggagaggaag aagaagaggc agcaggctag gaagactgca tcagttctta      300
gtaaagatga tgtggcacct gaaagtggtg atactacagt gaagaaacct gaatcaaaga      360
aggaacagac cccagagcat gggaagaaaa aacgtggcag aggaaaagcc caagttaaag      420
caacaaatga atccgaagac gaaatcccac agctggtacc aataggaaag aagactccag      480
ctaatgaaaa agtagagatt caaaaacatg ccacaggaaa gaagtctcca gcaaagagtc      540
ctaatcccag cacacctcgt gggaagaaaa gaaaggcttt gccagcatct gagaccccaa      600
aagctgcaga gtctgagacc ccaggggaaaa gcccagagaa gaagccaaaa atcaaagaag      660
agcagtgaag gaaaaaagtc cttcgctggg gaaaaaagat gccgaagaca gacttcaaaa      720
aagccagang ccaggttttc ccactcctag taaatctgtg agaaagcttt ccacacccccc      780
```

aaaaaatgg ·   789

```
            <210> 448
            <211> 820
            <212> DNA
            <213> Homo Sapiens

            <400> 448
caggattact tatggaggtt ttattatttn tatttatttt tgagactgag tcttgctctg    60
tcatcaggct ggagtgcagt ggctcactgc aacctccgcc tcccaggttc aagcaattct   120
cctgcctcag cctccctagt agctgggatt acaggtgtcc accaccatgc ccaattaatt   180
tttgtatttt tggtacagac agggtttcac catgttggcc aggatggtct cgatctcgtt   240
gaccttgtga tccgcctgcc tcggcctccc aaagtgctgg gattacaggc gtgagccacc   300
gcccctggac tacttatgga ggttttaaaa aatcttttaa gtccaggcct gacgtttaga   360
gaaggttaca aaggcggcca ggatctgagt atttccaaaa agctctggag gcagcattga   420
ggtttccttc cagttgaatc actgactta ggtcgactgg ggtactttgg gttttttggg   480
ccattttttg ggggtgtggg aagcttttct cacagattta ctaggagtgg tgaaaaactt   540
ggcctctggc ttttttggag tctgtctcgc atcttttttc cccagcgaag gacttttttc   600
cttcactgcc tcttctttga ttttttggctt cttctcttgg gcttttccct ggggtctcag   660
actctgcagc tttttgggggg tcttcaanat gctggcaaaa gccttttctt ttcttcccac   720
gaggggggngc ctggggatta ggactctttt gcctgggana cttcttttct tgnggggnang   780
tttttgaaac nntactttt ccaatttagc ctggaggcct                          820

            <210> 449
            <211> 936
            <212> DNA
            <213> Homo Sapiens

            <400> 449
aaaagaagga aacagttact caactccaaa atatcattga ggctaattct cagcattacc    60
aaaaaaatat taatagtttg caggaagagc ttttacagtt gaaagctata caccaagaag   120
aggtgaaaga gttgatgtgc cagattgaag catcagctaa ggaacatgaa gcagagataa   180
ataagttgaa cgagctaaaa gagaacttag taaaacaatg tgaggcaagt gaaaagaaca   240
tccagaagaa atatgaatgt gagttagaaa atttaaggaa agccacctca aatgcaaacc   300
aagacaatca gatatgttct attctcttgc aagaaaatac atttgtagaa caagtagtaa   360
atgaaaaagt caaacactta gaagatacct taaaagaact tgaatctcaa cacagtatct   420
taaaagatga ggtaacttat atgaataatc ttaagttaaa acttgaaatg gatgctcaac   480
atataaagga tgagttttttt catgaacggg aagacttaga gtttaaaatt aatgaattat   540
tactagctaa agaagaacag ggctgtgtaa ttgaaaaatt aaaatctgag ctagcaggtt   600
taaataaaca gttttgctat actgtagaac agcataacag agaagtacag agtcttaagg   660
aacaccatca aaaagaaata tcagaactaa atgagacatt tttgtcagat tcagaaaaag   720
gaaaaattaa cattaatggt tgaaattcaa ggtcttaang gacagtgtga aaacctaccg   780
ccaggaaaag caagaagcca ttttaaantt ntgagagntt acccagagga ttttggaaat   840
ttcccaancn gaactggggg gaatctgctg ggaaaaatag gtcaggagtt cgaatcatgg   900
aaccaccagc aggcctttga ngtcatgacc tgagca                             936

            <210> 450
            <211> 806
            <212> DNA
            <213> Homo Sapiens

            <400> 450
aactcaaaac agtgttaagt tcctatgctg ttagtactgt atcttgtcca cacctcaaac    60
aacagtgaga tctctgagca catggtctgt acctcaacca cttttctatc accagggtct   120
agaatagttg ggcatttaaa taaaatttgc taaatgaatg aaaaatccaa aataaatcat   180
```

-241-

```
gaagccattt ataaatcaca ccaatcttgc ttgggttaaa caatagaaag taacactttt      240
gaaagagaag gcaaacaggt gttagagggg caagaatgtg agctcgagga aaagacagct      300
acgaactgtg tttttaacaa ctcattattt ggctactata tttcccaatc tattctaaca      360
ctaacaagaa tctgtctaat taattgtgac aacatctgca aaaccatagt tacctatttt      420
ttcttccaac tcttttactg aagacagagg atcatttttt acagaaggtg attttgctaa      480
ggaatccttt aatagtatca actctgctct cctatctcgt aattcttttt gntctagtag      540
tggctttagg ttttcatgtt cctttataaa acattttttct ttttcattat ggatttcact     600
tttgctacat gtttgagata cttcttcaa cttgaattaa aagaatctga ttttcaagcc        660
ttggtttttc attagcattc ttcatttcta gaagatccag actgcanggn ctcttttct        720
ggactggaat tcttctaact cttttccttt aagaagaacc tttttcttgg ntcataggcc       780
tcttcaatta aggacttaag gtcttt                                            806
```

```
        <210> 451
        <211> 909
        <212> DNA
        <213> Homo Sapiens

        <400> 451
ctgagctctt ccagggcaag aaatatgacg ggccagaagt ggatgtgtgg agtctggggg      60
tcattttata cacactagtc agtggctcac ttccctttga tgggcaaaac ctaaaggaac      120
tgagagagag agtattaaga gggaaataca gaattccctt ctacatgtct acagactgtg      180
aaaaccttct caaacgtttc ctggtgctaa atccaattaa acgcggcact ctagagcaaa      240
tcatgaagga caggtggatc aatgcagggc atgaagaaga tgaactcaaa ccatttgttg      300
aaccagagct agacatctca gaccaaaaaa gaatagatat tatggtggga atgggatatt      360
cacaagaaga aattcaagaa tctcttagta agatgaaata cgatgaaatc acagctacat      420
atttgttatt ggggagaaaa tcttcagagc tggatgctag tgattccagt tctagcagca      480
atctttcact tgctaaggtt aggcccgagc agtgatctca acaacagtac tggccagtct      540
cctcaccaca aagtgcagag aagtgtttct tcaagccaaa agcaaagacg ctacagtgac      600
catgctggac cagctattcc ttctgttgtg gcgtatcccg aaaaggagtc agaccagcac      660
tgcagatagg tgaccctcaa agaagatggg aaatttcctt ccnggaaatc aaagtggcag      720
tgctggttgg aaggaaangg gaattgcttc cagccaggtc ccatgctttg ggnaatgcca      780
ggtaatncct aataaggcgg atattcctgg aacgccagga aaagctccac tggncccctag     840
tagtancnca gcatctggtg ggaatgacnc gaccgaaatt ncttaaggtt tgcagtggag      900
agaacttcc                                                              909
```

```
        <210> 452
        <211> 672
        <212> DNA
        <213> Homo Sapiens

        <400> 452
actgaaaaaa agtgaanttt naattatntt gtnaatnnac tnaaaaaacc ncacncaagc      60
aatgttcaca antntaaatt naaacctttt gcactaaaaa ancacaaaan ancaaacaca      120
aaaccacagg cntgaactgn aaacctgtct taactatgaa ctggncttaa ggttaattct      180
tannngccat tcantatttc nntccttggn aactgtaatg ttntagcacc ggatgatctc      240
ccgnanaggt nctagaanng acngnctgcc agngnangga gatncttccn tatacaccac      300
ttnanacnca taccgtcnan tttcanaccn acccagacgg nangcacatg gngatggggc      360
cncacnccna ctntnanggn aacggaagta gggcaggngg cgcatnggtt gcacatcttt      420
aatgtattgc attcgnaaaa aaaggccag ntttcnatcc caggcgtgct ctngacctna      480
gactttaatn ncatgattta naanatncag nacgntattg cctaaatntt attctataca      540
tttccatcag tggttnagga aaacacttta aatgcaactn anttccacat cananncact      600
gnggttacag ntttagctca ttgggcaatt tttngaagca attttttnng aaangctntt      660
ggaatgnccc cc                                                          672
```

```
        <210> 453
```

-242-

<211> 834
<212> DNA
<213> Homo Sapiens

<400> 453
aagaagccaa gaagtctgaa gaaccaagaa ttcggaagaa gccgggaccc aagcccggat   60
ggaagaagaa gcttcgttgt gagagggagg agcttcccac catctacaag tgtccttacc   120
agggctgcac ggccgtgtac cgaggcgctg acggcatgaa gaagcacatc aaggagcacc   180
acgaggaggt ccgggagcgg ccctgcccccc accctggctg caacaaggtt ttcatgatcg   240
accgctacct gcagcgccac gtgaagctca tccacacaga ggtgcggaac tatatctgtg   300
acgaatgtgg acaaaccttc aagcagcgga agcaccttct cgtccaccaa atgcgacatt   360
cgggagccaa gcctttgcag tgtgaggtct gtgggttcca gtgcaggcag cgggcatccc   420
tcaagtacca catgaccaaa cacaaggctg agactgagct ggactttgcc tgtgaccagt   480
gtggccggcg gtttgagaag gcccacaacc tcaatgtaca catgtccatg gtgcacccgc   540
tgacacagac ccaggacaag gccctgcccct ggaggcggaa ccaccacctg ggccaccgag   600
cccctctgtg accacagacg gccaggcggt gaagcccgaa cccacctgag gacggcagtg   660
aggatgagca cctctagcag cctggacttc gcagtggctg tgtcaagcct caccctctcgt   720
gtgcacccgc atgggagggt cggagggttg cttgccgncc ttggtgctgg angcgggctt   780
ggtgtccggc tcaagtagcc ttctttgntc ttgggaccag tgggttattt tccc   834

<210> 454
<211> 703
<212> DNA
<213> Homo Sapiens

<400> 454
cccgtgtaaa taatttatta caagcataac atggagctct tgttgcacta aaaagtggat   60
tacaaatctc ctcgactgct ttagtgggga aaggaatcaa ttatttatga actgtccggc   120
cccaagtcac tcagcgtttg cgggaaaata aaccactggt cccagagcag aggaaggcta   180
cttgagccgg acaccaagcc cgcctccagc accaagggcg ggcagcaccc tccgaccctc   240
ccatgcgggt gcacacgaag ggtgaggctg acacagccac tgcggagtcc aggctgctan   300
aggtgctcat cctcactgcc gtcctcaggt gggttcgggc ttcaccgcct ggccgtctgt   360
ggtcacagag gggctcggtg gcccaggtgg tggttccgcc tccaggggca gggccttgtc   420
ctgggtctgt gtcagcgggt gcaccatgga catgtgtaca ttgaggttgt gggccttctc   480
aaaccgccgg ccacactggt cacaggcaaa gtccagctca gtctcagcct tgngtttggt   540
catgtggtac ttgagggatg cccgctgcct gcactggaac ccacagacct cacactgcaa   600
aggcttggct nccgaatgtc gcatttgggg gacgaaaaag gtgcttccgc tgcttgaaag   660
gnttggccca attnggtaca agatatagtt ccccacctttt ggg   703

<210> 455
<211> 825
<212> DNA
<213> Homo Sapiens

<400> 455
atggcaatca ggaaaaggtg ccagaacccg aggctttgga ccttccagat gacttgaacc   60
ttgacagtga agacaagaat ggtggtgagg acaccgacaa tgaagaagga gaagaagaga   120
atcctttgga gataaaagaa aaaccagaag aagcaggtca tgaagctgag gaaagaggag   180
agaccgagac cgaccagaac gaaagtcaga gtccacagga gcctgaggaa ggccccagtg   240
aagatgacaa ggcagaaggg gaagaggaaa tggacacagg agctgatgac caagatggag   300
atgctgctca gcatcctgaa gaacactctg aggagcagca gcagtctgtg gaggaaaaag   360
acaaggaagc cgatgaagaa ggtggagaga atggccctgc tgaccaaggt ttccagcccc   420
aggaggaaga agaacgggag gactctgata cagaggagca ggtgccagag gctttggaga   480
ggaaggagca tgcctcctgt gggcagactg tgtgtggagaa catgcagaac acacaggcca   540
tggagctggc tggggccgca cctgagaagg agcaggggaa agaggaacac ggaagtggag   600

```
ctgcagatgc aaaccaggca gaaggccatg aatcgaattt cattgcccag ttggccttcc      660
agaacacacc aggaaaaaca cacagagttt taagaggaaa cctgggcagg cttgacaatt      720
gaacgttnca tgggtgatca caattgaacg tgtgcacaag aagctganga cttgtggaat      780
ccggacaggc attgccaacc aggggccagc ttaacaagcc ccagg                      825
```

```
        <210> 456
        <211> 740
        <212> DNA
        <213> Homo Sapiens

        <400> 456
acatcaacaa cagtggtata tgttttaata gttttcagaa tataagctgc atagcttttt       60
agaataaaaa atgatataac ttcaggtaca tgctttggga cacttggtta aacaaggaat      120
ctgtgtcttt gatgaccacc tcaaaagggt cgcagacttc acagtgtaac ttggaaacag      180
acaaggagat agatgattac atcatgacat actgcctaca aaagaacatt ctgacagaac      240
attaagtaga acagagcaca cagtttcaag tattcagcac tgctttctgg ccaagtaaaa      300
actgcctaaa gatcagtttc tttcgactgg aaaaaataga tggagctgct gagttctgga      360
cacagcgttt cttttcccaga atgagactgg ctcagtccag cttgaaagca gtgtgaggaa      420
tcactcttcc ccttgactgt taagaaaaaa aaaaatgaac taaacaaata aattactaca      480
acaacaggga ccatggcact gaatgaaata aaggggcaat caccttccca tcattgcata      540
gtctcccgaa gcagcaagtg tgaaagagga tactgaaaag ccacttcatt tttacacagc      600
ccaagggatc gtttttatng atgacctggg cacctataat gnccagttgc tttatgagaa      660
ccacacacac accacattct tcctaccctn taagagaagg taggttcctt tcacaataag      720
gaaaaccccc ccttatactt                                                  740
```

```
        <210> 457
        <211> 726
        <212> DNA
        <213> Homo Sapiens

        <400> 457
aaaatgtagt caactttatt ctccttaaac cacaaaatag agtctttggt tgtacaaaca       60
tcactagtta cagtctcgcc gaggtctcgg ctggggtggg gcagttagtt agtcacaggc      120
cagaactcct gtggggtctc tttaaaatgc taacacccag gttaaaagac ttggggcaag      180
ggtggtgctg gagctggcag ggccccacc ccaagtctgg gggaggtgcc tgctcctcta       240
ggagggcaca gggcccaggc cacggcgccc aggccttacg gggcggcggc tgctgcacag      300
tgccacatct tcagggccca cagcgccggg tgagggcctg cccagaagca ccagagccac      360
ttctccatcc tcctcctgcg ggccagggct gggagatggt tccagggacc tcaactcctc      420
agcaaagtcc ggtgacaggc gtcccgggga ggtgctggtc tgggggccga ggtcttccac      480
aggggtgggc gacggggtgg gcccagggga aggggcctcg gccagtcgct ccaggggccc      540
ccgcgtgccc cggccttct gggacctgct gaggaccatc tgtgctcgga gagcgtcctg       600
ttccaatgac ttcatcctgg ctggccttca caagcgcacg cttctcggnc ttcagggccc      660
cggacttcgg caaggggaca nggcacgctt cgggtgccgg tggcttccgg actttggacg      720
ccgcaa                                                                 726
```

```
        <210> 458
        <211> 870
        <212> DNA
        <213> Homo Sapiens

        <400> 458
cgcggcctct ccgccgggtg taccacctgt cgcggcgcga acctctggt gaaagaaaag        60
atgttgtccc ggttaagagt agtttccacc acttgtactt tggcatgtcg acatttgcac      120
ataaaagaaa aaggcaagcc acttatgctg aacccaagaa caaacaaggg aatggcattt      180
actttacaag aacgacaaat gcttggtctt caaggacttc tacctcccaa aatagagaca      240
```

```
caagatattc aagccttacg atttcataga aacttgaaga aaatgactag cccttttggaa      300
aaatatatct acataatggg aatacaagaa agaaatgaga aattgtttta tagaatactg      360
caagatgaca ttgagagttt aatgccaatt gtatatacac cgacggttgg tcttgcctgc      420
tcccagtatg dacacatctt tagaagacct aagggattat ttatttcgat ctcagacaga      480
ggtcatgtta gatcaattgt ggataactgg ccagaaaatc atgttaaggc tgttgtagtg      540
actgatggag agagaattct gggtcttgga gatctgggtg tctatggaat gggaattcca      600
gtaggaaaac tttgttgnat cagcttgtgc aggaatacgg cctgatagat gcctgccagt      660
gtgtattgat gtgggaactg ataatatcgc actcttaaaa ganccatttt acatgggctt      720
gaccagaaac gagatcgcac ccacagttga tganctgatg gatgagttta tgaaagcttt      780
actgacagat atggccggaa cacctttatt cagttcgaag acnttggaaa tcataangcc      840
ttcaggtctt tgagaaagtc cggggaaaaa                                      870
```

```
        <210> 459
        <211> 761
        <212> DNA
        <213> Homo Sapiens

        <400> 459
aaatgtaaga tatttattaa ataaaaaggt tacactatga tttttataca ctgttgaaaa       60
caatgacttt tatttactta aagccagcag tagttcccat tactctcata atgttatagt      120
taaggcttga tttagttcca gaaaataaat agggtaaatt tttaatattt ccctagctct      180
gtctgctata gggaatttca gagtatgaag gtaagatgaa gcagatatat aagaacattt      240
ttagataatg acaatttttc cttaaaattt ggtgaaaatt tagtttcttc tcaaaattct      300
gtacttctat ccataaaagt aaatttctat tttagtagct ctgtaagaac taggccagag      360
aagagtatta cccataatag taaatagcaa atactttggc aagtctgaat tagagtacaa      420
gtgaagacat tcacaaacac actttttaca tctcctggat gtggtacggg ctgtatgtta      480
gaattaaagc atcacaacta tctgattgta gggtgctggt gggcaatgca atcaatcaac      540
acgtctaccc caacagatgt ggagacccat ggaaaaaata catcaaccaa agtggtcagg      600
gagaacaaaa ccccagaaaa caccccttaaa actgaagaca ttatctcttc ttggctgaaa      660
aaaggggttc cctggagcac angaaaggtt ttatcaaggg aggcttctat tcngtaatca      720
caggaaggct tgatgcanat tcctggccat tcataccccca t                        761
```

```
        <210> 460
        <211> 876
        <212> DNA
        <213> Homo Sapiens

        <400> 460
ctgagctcct gaagcgccct aaggagtaca ctgtgcgctt cactttttcca gacccccccac      60
cactcagccc tccagtgctg ggtctgcatg gtgtgacatt cggctaccag ggacagaaac     120
cactctttaa gaacttggat tttggcatcg acatggattc aaggatttgc attgtgggcc     180
ctaatggtgt ggggaagagt acgctactcc tgctgctgac tggcaagctg acaccgaccc     240
atggggaaat gagaaagaac caccggctga aaattggctt cttcaaccag cagtatgcag     300
agcagctgcg catggaggag acgcccactg agtacctgca gcggggcttc aacctgccct     360
accaggatgc cgcaagtgc ctgggccgct tcggcctgga gagtcacgcc cacaccatcc     420
agatctgcaa actctctggt ggtcagaagg cgcgagttgt gtttgctgag ctggcctgtc     480
gggaacctga tgtcctcatc ttggacgagc caaccaataa cctggacata gagtctattg     540
atgctctagg ggaggccatc aatgaataca agggtgctgt gatcgttgtc agccatgatg     600
cccgactcat cacagaaacc aattgccagc ttgtgggtgg tggaggaaca gagtggtagc     660
ccaatcgatg gtgactttga agactacaag ccgggaggtg ttggaagccc tgggtgaagt     720
catgggcagc cnggccccga naagtgaagc tttncttttcc agaagtntcc gagagaacat     780
aattggggg gcctaaaann cctctggggg cttcccttct tttgaanaat gctntggnct     840
gcaantgact tggcaaccat ttaggcccct taaagg                               876
```

```
        <210> 461
```

```
            <211> 689
            <212> DNA
            <213> Homo Sapiens

            <400> 461
gcaaacaaga tccatttagt ggggaagagg ggactattaa aagctgctag aaaactgaat       60
aaagcaaatc aagactgaga acagttccaa ctcccatcaa tctccaaaca gtgacaggtc      120
ggcagcaact cctttccttt atttcttccc cttgtaaagg gaaattcaag ttcagcagca      180
ttcctttcct gccccaagtc ctcaaccaga caagaggctg caggcaccaa atcttgggct      240
ggataatggc aaaggcctca gaagctcacc tccagctctg agcttcaaca gctgtttgta      300
ccagtgagtc agcattaaat ccaccagaaa agaacagcac cacccaaaga ctggggggca      360
gctgggcctg aagctgtagg gtaaatcaga ggcaggcttc tgagtgatga gagtcctgag      420
acaataggcc acataaactt ggctggatgg aacctcacaa taaggtggtc acctcttgtt      480
tgtttagggg gatgccaagg ataaggccag ctcagttata tgaagagaag cagaacaaac      540
aaagtctttc agagaaatgg atgcaatcag aagtgggatc cccggncaca tcaaggtcac      600
actccacctt catgtgcctg aaatggttgc caggtcagct gcaggcccan aggcagtctt      660
canaaggaag gggagaccac agaggactt                                        689

            <210> 462
            <211> 840
            <212> DNA
            <213> Homo Sapiens

            <400> 462
aggagccttt ggagttccat gccaagcggc cttggcgccc cgaggaggca gtagaagatc       60
cggacgagga ggatgaggat aatactagtg aagccgagaa tgggttctcc ctggaggaag      120
tgttacggct cggaggcacc aagcaagatt accttatgct ggctactttg gatgagaatg      180
aggaagtgat agatggaggc aaaaaaggag caatcgatga ccttcagcaa ggtgaattgg      240
aagcatttat tcaaaatctt aatttggcga agtatacaaa agcttcctta attgaagaag      300
atgaaccagc tgaaaaagaa aattccagca aaaagaagt aaaaatacct aaaataaata      360
ataaaaatac agcagaaagt caaaggacat cagttaataa ggtgaaaaat aagaataggc      420
cagaaccaca ttctgatgag aatggcagta ccacaccgaa agtaaagaaa gataaacaga      480
acatctttga atttttgag agacagactt tgttacttag gcctggaggc aaatggtatg      540
atctggagta cagcaatgaa tattctttga aaccccagcc tcaggatgtt gnatctaagt      600
acaaaaccct tgctcagaag ctgtatcagc atgaaatcaa cttattcaaa agtaagacga      660
atagtcaaaa gggagcctct tctacctgga tgaaaggcaa ttgtgtcatc ggggaccact      720
aggtgacagg atggcagcca ttgattcttc ttattcagga tgatgcccgt tcacaccact      780
ttcagnttgt agnaaactct tggggaaccc ttggtaaaaa ggaanggcna caaaacagca      840

            <210> 463
            <211> 784
            <212> DNA
            <213> Homo Sapiens

            <400> 463
agatgtaagt agaattttaa tctataattt acattaataa ctcatttcct ttgttttta       60
gttttttgag tggtttaat cctcttcttt ttaaaatgtt tcttttcttt gatgatactt      120
tttgcatctc tgttgtgtag ccagtcatca cgttcagcct cccatctaag ctgtttgaga      180
cttgcattat ctttgttagc catggcattc atgccaatgt tatcaaactt ggatcccata      240
ttttcatcca atagatggcc aaactcttca gcagatacaa ataggctgga atcatttaag      300
tttctttct ttttttcttgg cccttgaaat gagccagcaa agtcaaaatc atctgtacct      360
tttctcttgc ttttcttagt actgactttg gagtggactt caagttctgg aacactctca      420
ctttcatcat ctaacacatc catgaatgtt cctccatctt catcaacttc agcaaattct      480
tcatcatcca tacttcctaa agaaacttca tcgtcatcca ggttaccaag ttcatcatca      540
ctaccttctg aatcttcatc taatgtgtta tccttagctc ctttggtct cttttcacg      600
```

```
tttccagcaa aaatccatat catcctttnc agagctgaaa cagttatcat cttcaaatgt    660
gtcaatcagc tcttcaaatt ctttcatcat ccacgtcctt ctaatacttt cttcaatctg    720
catccccgtt tttggnttct cttttaanca gcaacttttt ttatnaaacc ctggggggaaa   780
aaac                                                                 784
```

```
        <210> 464
        <211> 850
        <212> DNA
        <213> Homo Sapiens


        <400> 464
caggcatcgg ccaccggaac agcctggaga gcatctcttc catcgaccgg gagctgagcc    60
ctgagggccc aggcaaggag aaggagctgc ctggacagac cctgcactgg gggcccgagg    120
ccacagaagc cgcaggtcgg ggtctgcagc ccctgaagct ggactaccgc gccctggccg    180
ccgtgcccag cgctggcagc gtgcagaggg taccgtctgg agcagctgga gggaagatgg    240
ctgaatctcc ctgctcccct agtggccagc agccgccctc cccgccttct ccggatgagc    300
tgcccgccaa tgtgaagcag gcctacaggg ccttcgcggc cgtgcccact tctcacccgc    360
ctgaggatgc ccctgcccag cccccccacgc ctgggcctgc agcctccccg gagcagctgt    420
ccttccggga gcggcagaag tactttgagc tggaggtgcg cgtgccccag gccgagggcc    480
cccctaagcg cgtgtccctg gtgggtgctg acgacctgcg gaagatgcag gaggaggaag    540
ccagaaaact acagcagaag agagcgcaga tgctgcggga ggcggcagaa gctgggggccg    600
aagcgaggct ngccctggac ggggagacgc tgggcgagga ggaacaggan gatgagcagc    660
caccctgggc cagcccgagc cccacttaag gcagaacccg gcgtcccccc ggccctggaa    720
gtggcgcccc ggtgcggacg gncaaaagct gaacgggggcc ancaggaacc ggttgccctt    780
canagtnccg gacccaccgg gaccccancg tgccctggtc ccttgcccaa cttccgggcc    840
ctggaaggcc                                                           850
```

```
        <210> 465
        <211> 759
        <212> DNA
        <213> Homo Sapiens


        <400> 465
aaaatgtagt caactttatt ctccttaaac cacaaaatag agtctttggt tgtacaaaca    60
tcactagtta cagtctcgcc gaggtctcgg ctggggtggg gcagttagtt agtcacaggc    120
cagaactcct gtggggtctc tttaaaatgc taacacccag gttaaaagac ttggggcaag    180
ggtggtgctg gagctggcag ggccccacc ccaagtctgg gggaggtgcc tgctcctcta     240
ggagggcaca gggcccaggc cacggcgccc aggccttacg gggcggcggc tgctgcacag    300
tgccacatct tcagggccca cagcgccggg tgagggcctg cccagaagca ccagagccac    360
ttntccatcc tcctcctgcg ggccagggct gggagatggt tccaggggacc tcaactcctc    420
agcaaagtcc ggtgacaggc gtcccgggga ggtgctggtc tgggggccga ggtcttccac    480
aggggtgggc gacggggtgg gcgcagggga aggggcctcg gccagtcgct ccaggggccc    540
ccgcgtgccc cggcctttct gggacctgct gaggaccatc tgggctcngg aaagcgtcct    600
tgttccaatg acttcatcct ggctgcsctt cacagngcac gcttntcggc ttcagggccc    660
ggagctttgg cangggggaca aggcaacgct tcgggtgccc ggtgggttcc ggactttga     720
acgcgccaan ccggttcctt ggngggcgcc cgtttcaac                           759
```

```
        <210> 466
        <211> 1240
        <212> DNA
        <213> Homo Sapiens


        <400> 466
gtggtagtgg tgccggagct ggaggcggag gcatgtttgg tagtggcggt ggaggagggg    60
gcactggaag tacaggtcca gggtatagct tcccacacta tggatttcct acttatggtg    120
```

-247-

WO 99/04265 PCT/US98/14679

```
ggattacttt ccatcctgga actactaaat ctaatgctgg gatgaagcat ggaaccatgg     180
acactgaatc taaaaaggac cctgaaggtt gtgacaaaag tgatgacaaa aacactgtaa     240
acctctttgg gaaagttatt gaaaccacag agcaagatca ggagcccagc gaggccaccg     300
ttgggaatgg tgaggtcact ctaacgtatg caacaggaac aaaagaagag agtgctggag     360
ttcaggataa cctctttcta gagaaggcta tgcagcttgc aaagaggcat gccaatgccc     420
ttttcgacta cgcggtgaca ggagacgtga agatgctgct ggccgtccag cgccatctca     480
ctgctgtgca ggatgagaat ggggacagtg tcttacactt agcaatcatc caccttcatt     540
ctcaacttgt gagggatcta ctagaagtca catctggttt gatttctgat gacattatca     600
acatgagaaa tgatctgtac cagacgccct gcacttggc agtgatcact aagcaggaag      660
atgtggtgga ggatttgctg agggctgggg ccgacctgag ccttctggac cgcttgggta     720
actctgtttt gcacctagct gccaaagaag gacatgataa agttctcagt atcttactca     780
agcacaaaaa ggcagcacta cttcttgacc accccaacgg ggacggtctg aatgccattc     840
atctagccat gatgagcaat agcctgccat gtttgctgct gctggtggcc gctggggctg     900
acgtcaatgc tcaggagcag aagtccgggc gcacagcact gcacctggct gtggagcacg     960
acaacatctc attggcaggc tgcctgctcc tggagggtga tgcccatgtg gacagtacta    1020
cctacgatgg aaccacaccc ctgcatatag cagctgggaa agggtccacc aggctggcag    1080
ctcttcttaa agcagcagga gcagatcccc tggtgggaga ctttgagccc ttctatgacc    1140
tggatgactc ttgggaaaat gcaggaaaag gattgaagga gttggnctgg aancacgcct    1200
tttaganatg ggccnccaac tggcaggnat ttggcctatt                          1240
```

        <210> 467
        <211> 885
        <212> DNA
        <213> Homo Sapiens

        <400> 467

```
gtgccggagc tggaggcgga ggcatgtttg gtagtggcgg tggaggaggg ggcactggaa      60
gtacaggtcc agggtatagc ttcccacact atggatttcc tacttatggt gggattactt     120
tccatcctgg aactactaaa tctaatgctg gatgaagca tggaaccatg gacactgaat       180
ctaaaaagga ccctgaaggt gtgtgacaaaa gtgatgacaa aaacactgta aacctctttg     240
ggaaagttat tgaaaccaca gagcaagatc aggagcccag cgaggccacc gttgggaatg      300
gtgaggtcac tctaacgtat gcaacaggaa caaaagaaga gagtgctgga gttcaggata      360
acctctttct agagaaggct atgcagcttg caaagaggca tgccaatgcc cttttcgact      420
acgcggtgac aggagacgtg aagatgctgc tggccgtcca gcgccatctc actgctgtgc      480
aggatgagaa tggggacagt gtcttacact tagcaatcat ccaccttcat tctcaacttg      540
tgagggatct actagaagtc acatctggtt tgatttctga tgacattatc aacatgagaa      600
atgatctgta ccagacgccc ttgcacttgg cagtgatcac taagcaggaa gatgtggtgg      660
aggatttgct gagggctggg gcccgacctg agccttctgg acccgcttgg gtaactctgg      720
tttgcaccta gcttgcccaa agaaggacat gataaagttc tcaagtatct tacttaagcn      780
caaaaanggc agcactactt tnttgaccac ccccaacggg ggacggtctt gaatgccatt      840
catttaagcc atgatgagcc ataagcctgg catggtttgc tgctg                      885
```

        <210> 468
        <211> 748
        <212> DNA
        <213> Homo Sapiens

        <400> 468

```
gcaaatcaga gaaataacca cattagaaaa agcaatatgc cttttttttt aaaatggcac      60
atcaagtgac tctcatttta aaatatctct tttcttaacc cttaatttga atgcaaaatg     120
atgctgtggt cagaaggaat gccaggtggc gaccgtgata ccttaatga caataggaac       180
gtagcagagg gacaacagca atgacaacag aaagcagctg tgatccagca gcagctggca     240
aagcttagta agcaacctca tccccagatg catccgctca gccagtgttg tgattgctag     300
atactatctg taagtgaacc aaactaaaat tcatttatga accaagaaag gaagccaagt     360
tgaaaaggtc tcgagttaaa tcgagaatga ttcaggcggg ccggctctct gagcacctt      420
```

-248-

```
ggatgcactt cagcttctgt cttgtggaaa cgcgtggaat tttagggctt tggtttacac    480
ggtgtgggaa attgtcagca ggctaaattt tgccttctag aggtccttcc tgcccataat    540
catggggcat tttgttgaga gttagcagtg aggcaccact ggtcagagac tcggtaaagc    600
tgagtttgcg gaaggatgtc tccacgccgc ttgtcgcaga cactgtcact ggcttcggag    660
ctcgnctatt tgctgccttg tggaggcagg cgaaanaagc agcgagtggg ccctgaaaag    720
gngggcnttc actgggctgg aaggcttg                                        748
```

         <210> 469
         <211> 770
         <212> DNA
         <213> Homo Sapiens

         <400> 469

```
gcaaatcaga gaaataacca cattagaaaa agcaatatgc cttttttttt aaaatggcac     60
atcaagtgac tctcatttta aaatatctct tttcttaacc cttaatttga atgcaaaatg    120
atgctgtggt cagaaggaat gccaggtggc gaccgtgata cctttaatga caataggaac    180
gtagcagagg gacaacagca atgacaacag aaagcagctg tgatccagca gcagctggca    240
aagcttagta agcaacctca tccccagatg catccgctca gccagtgttg tgattgctag    300
atactatctg taagtgaacc aaactaaaat tcatttatga accaagaaag gaagccaagt    360
tgaaaaggtc tcgagttaaa tcgagaatga ttcaggcggg ccggctctct gagcaccttt    420
ggatgcactt cagcttctgt cttgtggaca acgcagtgga attttagggc tttggtttac    480
acggtgtggg aaattgtcag caggctaaat tttgccttct agaggtcctt cctgcccata    540
atcatggggc attttggtga gagntagcag tgaggcacca ctggtcagag acttcggtaa    600
agctgagttt gcgggaaagg atgtnttcca cgccgcttnt cgcanacact ggcactgnct    660
tgggagctcn gctattttgc ttgcccttgt ggangcaggc caaaanaagc caacgaatgg    720
ggccctgaaa aggnggggcct tcanctgggc ttggaagctt gcctnggatc                 770
```

         <210> 470
         <211> 892
         <212> DNA
         <213> Homo Sapiens

         <400> 470

```
agagtgctgg agttcaggat aacctctttc tagagaaggc tatgcagctt gcaaagaggc     60
atgccaatgc ccttttcgac tacgcggtga caggagacgt gaagatgctg ctggccgtcc    120
agcgccatct cactgctgtg caggatgaga atggggacag tgtcttacac ttagcaatca    180
tccaccttca ttctcaactt gtgagggatc tactagaagt cacatctggt ttgatttctg    240
atgacattat caacatgaga aatgatctgt accagacgcc cttgcacttg gcagtgatca    300
ctaagcagga agatgtggtg gaggatttgc tgagggctgg ggccgacctg agccttctgg    360
accgcttggg taactctgtt ttgcacctag ctgccaaaga aggacatgat aaagttctca    420
gtatcttact caagcacaaa aaggcagcac tacttcttga ccaccccaac ggggacggtc    480
tgaatgccat tcatctagcc atgatgagca atagcctgcc atgtttgctg ctgctggtgg    540
ccgctggggc tgacgtcaat gctcaggagc agaagtccgg gcgcacagca ctgcacctgg    600
ctgtggagca cgacaacatc tcattggcag gctgcctgct cctggagggt gatgcccatg    660
tggacagtac tacctacgat ggaaccacac ccctgcatat agcagctggg aaagggtcca    720
ccaggctggc agctcttctt aaagcagcag gagcagatcc cctggtggga gactttgagc    780
ccttctatga cctggatgac tcttgggaaa atgcaggaaa aggattgaag gagttggnct    840
ggaancacgc cttttagana tgggccncca actggcaggn atttggccta tt              892
```

         <210> 471
         <211> 759
         <212> DNA
         <213> Homo Sapiens

         <400> 471

```
gcaaatcaga gaaataacca cattagaaaa agcaatatgc cttttttttt aaaatggcac      60
atcaagtgac tctcatttta aaatatctct tttcttaacc cttaatttga atgcaaaatg     120
atgctgtggt cagaaggaat gccaggtggc gaccgtgata cctttaatga caataggaac     180
gtagcagagg gacaacagca atgacaacag aaagcagctg tgatccagca gcagctggca     240
aagcttagta agcaacctca tccccagatg catccgctca gccagtgttg tgattgctag     300
atactatctg taagtgaacc aaactaaaat tcatttatga accaagaaag gaagccaagt     360
tgaaaaggtc tcgagttaaa tcgagaatga ttcaggcggg ccggctctct gagcaccttt     420
ggatgcactt cagcttctgt cttgtggaca acgcagtgga attttagggc tttggtttac     480
acggtgtggg aaattgtcag caggctaaat tttgccttct agaggtcctt cctgcccata     540
atcatggggc attttgttga gagttagcag tgaggcacca ctggtcagag actcggtaaa     600
gctgagtttg cggaaggatg tctccacgcc gctgtccgca gacactgtca ctgnctcgga     660
gctcgtctat ttgctgcctt gtggaggcag gcgananagg caacgagtgg gccctgaaaa     720
gnggtcttca ctgggctgga agcttgnctg gatcacttt                            759
```

```
        <210> 472
        <211> 852
        <212> DNA
        <213> Homo Sapiens

        <400> 472
gtggtagtgg tgccggagct ggaggcggag gcatgtttgg tagtggcggt ggaggagggg      60
gcactggaag tacaggtcca gggtatagct tcccacacta tggatttcct acttatggtg     120
ggattacttt ccatcctgga actactaaat ctaatgctgg gatgaagcat ggaaccatgg     180
acactgaatc taaaaaggac cctgaaggtt gtgacaaaag tgatgacaaa aacactgtaa     240
acctctttgg gaaagttatt gaaaccacag agcaagatca ggagcccagc gaggccaccg     300
ttgggaatgg tgaggtcact ctaacgtatg caacaggaac aaaagaagag agtgctggag     360
ttcaggataa cctctttcta gagaaggcta tgcagcttgc aaagaggcat gccaatgccc     420
ttttcgacta cgcggtgaca ggagacgtga agatgctgct ggccgtccag cgccatctca     480
ctgctgtgca ggatgagaat ggggacagtg tcttacactt agcaatcatc caccttcatt     540
ctcaacttgt gagggatcta ctagaagtca catctggttt gatttctgat gacattatca     600
acatgagaaa tgatctgtac cagacgccct ttgcacttgg cagtgatcac taagcaggaa     660
gatgtggtgg aggatttgct gaagggctgg ggccgacct tgagcctttc tggacccgct      720
tgggtaactc tgttttgcac cctaacttgc caaagaaggg cattgataaa ggtcttcaag     780
tatcttactt cagcccaaaa anggcagcac tacttntttg accaccccaa cggggggacgg     840
gcttgaatgc ca                                                         852
```

```
        <210> 473
        <211> 804
        <212> DNA
        <213> Homo Sapiens

        <400> 473
gcaaatcaga gaaataacca cattagaaaa agcaatatgc cttttttttt aaaatggcac      60
atcaagtgac tctcatttta aaatatctct tttcttaacc cttaatttga atgcaaaatg     120
atgctgtggt cagaaggaat gccaggtggc gaccgtgata cctttaatga caataggaac     180
gtagcagagg gacaacagca atgacaacag aaagcagctg tgatccagca gcagctggca     240
aagcttagta agcaacctca tccccagatg catccgctca gccagtgttg tgattgctag     300
atactatctg taagtgaacc aaactaaaat tcatttatga accaagaaag gaagccaagt     360
tgaaaaggtc tcgagttaaa tcgagaatga ttcaggcggg ccggctctct gagcaccttt     420
ggatgcactt cagcttctgt cttgtggaca acgcagtgga attttagggc tttggtttac     480
acggtgtggg aaattgtcag caggctaaat tttgccttct agaggtcctt ccttgcccat     540
aatcatgggg cattttgttg agagttagca gtgaggcacc acttggtcaa gagactcggt     600
naagctgagt tttgcggaag gatgtctcca cgcccgctgt cgcagacact gtcactgtct     660
tcggaactcg nctatttgct gncttgtgga agcaggcnaa nanaagcanc gaantggggc     720
cctgaaaagn gggtcttcac ttggnctgga aggcttgccc tgggatcnct ttnaatgggc     780
```

```
ttcggnggaa ccccattttg tctt                                      804
```

```
        <210> 474
        <211> 819
        <212> DNA
        <213> Homo Sapiens


        <400> 474
ggctgggctg cgcttgggtc cgtcgctgct tcggtgtccc tgtcgggctt cccagcagcg    60
gcctagcggg aaaagtaaaa gatgtctgaa tatattcggg taaccgaaga tgagaacgat   120
gagcccattg aaataccatc ggaagacgat gggacggtgc tgctctccac ggttacagcc   180
cagtttccag gggcgtgtgg gcttcgctac aggaatccag tgtctcagtg tatgagaggt   240
gtccggctgg tagaaggaat tctgcatgcc ccagatgctg gctggggaaa tctggtgtat   300
gttgtcaact atccaaaaga taacaaaaga aaaatggatg agacagatgc ttcatcagca   360
gtgaaagtga aaagagcagt ccagaaaaca tccgatttaa tagtgttggg tctcccatgg   420
aaaacaaccg aacaggacct gaaagagtat tttagtacct ttggagaagt tcttatggtg   480
caggtcaaga aagatcttaa gactggtcat tcaaaggggt ttggctttgt tcgttttacg   540
gaatatgaaa cacaagtgaa agtaatgtca cagcgacata tgatagatgg acgatggtgt   600
gactgcaaac ttcctaattc taagcaaagc caagatgagc ctttgagaag cagaaaagtg   660
tttgtggggc gctgtcagag gacatgactg aggatgaagc tgcgggagtt cttctttca   720
gtancgggga tgtgatggat ggtcttcatn cccaagccat tcagggcctt tggctttggt   780
catttgcaga tgaatcagat gcgccagtct ctttgtgga                         819
```

```
        <210> 475
        <211> 721
        <212> DNA
        <213> Homo Sapiens


        <400> 475
atttaaatca gttttatttа agaatttcca acaatgacaa ctcttataaa aagcatccaa    60
gcacaggaca cagaactgca gcaaacagca ttcttatggg tagctaacag acattagaac   120
ttccacccтt ctttgagaca cctgagctca ctggtgaact ctgcttcaag tcctcctgca   180
aagcacacca caagctcagt ccatgttctc agcccatcag cttcagttca cattgccaca   240
cttacatatc agtaacagaa gagaacacac accatacagc attcacagca gttgacaaag   300
gggtaggggg agtacaagta tcatttcact taacacattc atctaatgtg ggttatctaa   360
gaacaaaaac tcacttaaaa gtcttccaac agatgtggat gtcctttgaa tgcaaaaaac   420
attcgtacat tatttgctat cattgctctc tgcacactct ctcaccaaag ccacaggatt   480
gagagacaca tctcgccaag ttaaaaaata tccattatgc accaccaagt ctctgcacgc   540
gctctctcct tttctcgctc atactagcct ttcatgcctc ggcaccacca tcaatcccac   600
acaaggtttc aaaagttcag acagccttct ggttccatat cacaggcctt gcgttcatag   660
cggtgatacg acttcctgga aattaagagt ancggataaa aatgggacac ccaccggtaa   720
a                                                                  721
```

```
        <210> 476
        <211> 442
        <212> DNA
        <213> Homo Sapiens


        <400> 476
attnaaatca gtttnattna anantttcca ncanngncan ctntnataaa aggcntccan    60
ncncaggacn canancngca gcaancagcn ttntnanggg tagntancan acnttaaanc   120
ttccacccntt ntttganacn ccnganctna nngggganct nngnttcang ncctccngca   180
angcacacca cangctcagn ccatgttntn agcccatcag nttcagttna catngccaca   240
nttncntatc agtaccagaa gagaccncnc nccntncagc nttcncagca gtngncaaag   300
gggtaggggn agtccangta tcatttnant taccacattc atctaagggg ggttatctaa   360
```

naccaaaanc tcanttaaan gtnttccanc anangnggan gnccttngaa ngcaaaaanc   420
nttcgnccat nattggctat ca   442

        <210> 477
        <211> 878
        <212> DNA
        <213> Homo Sapiens

        <400> 477
ggtggctggg ctgcgcttgg gtccgtcgct gcttcggtgt ccctgtcggg cttcccagca   60
gcggcctagc gggaaaagta aaagatgtct gaatatattc gggtaaccga agatgagaac   120
gatgagccca ttgaaatacc atcggaagac gatgggacgg tgctgctctc cacggttaca   180
gcccagtttc caggggcgtg tgggcttcgc tacaggaatc cagtgtctca gtgtatgaga   240
ggtgtccggc tggtagaagg aattctgcat gccccagatg ctggctgggg aaatctggtg   300
tatgttgtca actatccaaa agataacaaa agaaaaatgg atgagacaga tgcttcatca   360
gcagtgaaag tgaaaagagc agtccagaaa acatccgatt taatagtgtt gggtctccca   420
tggaaaacaa ccgaacagga cctgaaagag tattttagta cctttggaga agttcttatg   480
gtgcaggtca agaaagatct taagactggt cattcaaagg ggtttggctt tgttcgtttt   540
acggaatatg aaacacaagt gaaagtaatg tcacagcgac atatgataga tggacgatgg   600
tgtgactgca aacttcctaa ttctaagcaa agccaagatg agcctttgag aagcagaaaa   660
gtgtttgtgg ggcgctgtca gaggacatga ctgaggatga agctgcggga gttcttcttt   720
agtaccgggg atgtgatgga tgtctttatt ccccaagccc nttcaggggc ttttggcttt   780
ggtacatttg ccagatgatc agaatgccca gtctcttttg tggaaaagga ctttgatcat   840
ttaaagggaa tcagcggttc attatattcc aatggccc   878

        <210> 478
        <211> 768
        <212> DNA
        <213> Homo Sapiens

        <400> 478
ggtgtcaaaa aaaaatttta tttatctggt tcaaaaaatt ttttagaatg aatgcattta   60
gattgaccaa atagattttt aaaaacaaat ctttgccaaa tagtttaagt acttttaaac   120
ttcaaaatct tcttagggta aaataaatac ccgtatctat gcagtaccat aaacatgtta   180
ataaaaggcc actcaacatt gaaagccttc tatgaccagt aactgaaatt tacacaagtg   240
taaagaaggg attaaaccat gccgttgaca agttaactta cccctgggct ccttgaaggc   300
ttgtcagttt agtctttgga ggtccccgag taccatttta agtgttacca tgttactgct   360
gctgagtaat agtgcaagtg cattttaggt gcggtcaccc agacttattc aaaactagat   420
ttcaaaagaa aaaaaaaat tttcactttg gccaatgcaa gaacaaatac caattaagtc   480
tgggtatcag gtgtcaatgc atgacaggtg atgaatccat ttgacttgag acaactttc   540
aaataagttt atttgaagca aaataaacta ctgccaagaa actttatgaa agttccatct   600
caaaagggtc aaaaaagggg aattaactgc tatgaattct ttgcattcag ggcgtcaaaa   660
gacgccggcc tgnggatgcc gtgatgacca attcttgaat gagaaagcat gtagaccgna   720
tttcctatgg cagaaatatt tacnggccta ctttcaatgg aagngctt   768

        <210> 479
        <211> 815
        <212> DNA
        <213> Homo Sapiens

        <400> 479
gcgaagcggt ggctgggctg cgcttgggtc cgtcgctgct tcggtgtccc tgtcgggctt   60
cccagcagcg gcctagcggg aaaagtaaaa gatgtctgaa tatattcggg taaccgaaga   120
tgagaacgat gagcccattg aaataccatc ggaagacgat gggacggtgc tgctctccac   180
ggttacagcc cagtttccag gggcgtgtgg gcttcgctac aggaatccag tgtctcagtg   240

                                    -252-

```
tatgagaggt gtccggctgg tagaaggaat tctgcatgcc ccagatgctg gctggggaaa      300
tctggtgtat gttgtcaact atccaaaaga taacaaaaga aaaatggatg agacagatgc      360
ttcatcagca gtgaaagtga aaagagcagt ccagaaaaca tccgatttaa tagtgttggg      420
tctcccatgg aaaacaaccg aacaggacct gaaagagtat tttagtacct ttggagaagt      480
tcttatggtg caggtcaaga aagatcttaa gactggtcat tcaaaggggt ttggctttgt      540
tcgttttacg gaatatgaaa cacaagtgaa agtaatgtca cagcgacata tgatagatgg      600
acgatggtgt gactgcaaac ttcctaattc taagcaaagc ccagatgaac ctttgagaag      660
cagaaaagtg tttgtggggg cgctgtacag angacatgac tgangataan cttcnggagt      720
tctttttta ataccgggat gtgatggatg cttcatttcc caacccattc agggcctttg      780
nctttggtac catttgcaga tgatcanatt gccca                                 815
```

        <210> 480
        <211> 812
        <212> DNA
        <213> Homo Sapiens

        <400> 480
```
gtggtgtcaa aaaaaatttt atttatctgg ttcaaaaaat tttttagaat gaatgcattt       60
agattgacca aatagatttt taaaaacaaa tctttgccaa atagtttaag tacttttaaa      120
cttcaaaatc ttcttagggt aaaataaata cccgtatcta tgcagtacca taaacatgtt      180
aataaaaggc cactcaacat tgaaagcctt ctatgaccag taactgaaat ttacacaagt      240
gtaaagaagg gattaaacca tgccgttgac aagttaactt acccctgggc tccttgaagg      300
cttgtcagtt tagtctttgg aggtccccga gtaccatttt aagtgttacc atgttactgc      360
tgctgagtaa tagtgcaagt gcattttagg tgcggtcacc cagacttatt caaaactaga      420
tttcaaaaga aaaaaaaaaa ttttcacttt ggccaatgca agaacaaata ccaattaagt      480
ctgggtatca ggtgtcaatg catgacaggt gatgaatcca tttgacttga gacaactttt      540
caaataagtt tatttgaagc aaaataaact actgccaaga aactttatga aaagttccat      600
cttcaaaagg ggtcaaaaaa ggggaattaa ctgctatgaa ttctttgcat tcanggctgc      660
aaaacaaaga ccccatatta tttaaaatcc agtttatttta agaatttncc accntggaca      720
acttcttatt aaaaaggcnt tccaggccca nggaccacag aaactgnang ccaaacangc      780
atttcttatg gggtagctta ccaggacctt tt                                    812
```

        <210> 481
        <211> 1127
        <212> DNA
        <213> Homo Sapiens

        <400> 481
```
gaggacagca atttaatggc aaaggaaaga caagacaggc tgcgaaacac gatgctgctg       60
ccaaagcgtt gaggatcctg cagaatgagc ccctgccaga gaggctggag gtgaatggaa      120
gagaatccga agaagaaaat ctcaataaat ctgaaataag tcaagtgttt gagattgcac      180
ttaaacggaa cttgcctgtg aatttcgagg tggcccggga gagtggccca ccccacatga      240
agaactttgt gaccaaggtt tcggttgggg agttgtgggg ggaaggtgaa gggaaaagca      300
agaagatttc aaagaaaaat gccgccatag ctgttcttga ggagctgaag aagttaccgc      360
ccctgcctgc agttgaacga gtaaagccta gaatcaaaaa gaaaacaaaa cccatagtca      420
agccacagac aagcccagaa tatggccagg ggatcaatcc gattagccga ctggcccaga      480
tccagcaggc aaaaaaggag aaggagccag agtacacgct cctcacagag cgaggcctcc      540
cgcgccgcag ggagtttgtg atgcaggtga aggttggaaa ccacactgca gaaggaacgg      600
gcaccaacaa gaaggtggcc aagcgcaatg cagccgagaa catgctggag atccttggtt      660
tcaaagtccc gcaggcgcag cccaccaaac ccgcactcaa gtcagaggag aagacaccca      720
taaagaaacc aggggatgga agaaaagtaa cctttttga acctggctct ggggatgaaa      780
atgggactag taataaagag gatgagttca ggatgcctta tctaagtcat cagcagctgc      840
ctgctggaat tcttcccatg gtgcccgagg tcgcccaggc tgtaggagtt agtcaaggac      900
atcacaccaa agattttacc agggcagctc cgaatcctgc caaggccacg gtaactgcca      960
tgatagcccg agagttgttg tatgggggca cctcgcccac agcccgagac catttaaag     1020
```

```
aataacatct cttcaggcca cgtaccccat ggacctctca cgagaccctn tgagcaactg    1080
gactatcttt ncagagtcca gggattncag gttgaatacc aagactt              1127
```

        <210> 482
        <211> 773
        <212> DNA
        <213> Homo Sapiens

        <400> 482

```
taccgcccct gcctgcagtt gaacgagtaa agcctagaat caaaaagaaa acaaaaccca     60
tagtcaagcc acagacaagc ccagaatatg gccaggggat caatccgatt agccgactgg    120
cccagatcca gcaggcaaaa aaggagaagg agccagagta cacgctcctc acagagcgag    180
gcctcccgcg ccgcagggag tttgtgatgc aggtgaaggt tggaaaccac actgcagaag    240
gaacgggcac caacaagaag gtggccaagc gcaatgcagc cgagaacatg ctggagatcc    300
ttggtttcaa agtcccgcag gcgcagccca ccaaacccgc actcaagtca gaggagaaga    360
cacccataaa gaaaccaggg gatggaagaa aagtaacctt ttttgaacct ggctctgggg    420
atgaaaatgg gactagtaat aaagaggatg agttcaggat gccttatcta agtcatcagc    480
agctgcctgc tggaattctt cccatggtgc ccgaggtcgc ccaggctgta ggagttagtc    540
aaggacatca caccaaagat tttaccaggg cagctccgaa tcctgccaag gccacggtaa    600
ctgccatgat agcccgagag ttgttgtatg ggggcacctc gcccacagcc cgagaccatt    660
ttaaagaata acatctcttc aggccacgta ccccatggac ctctcacgag accctntgag    720
caactggact atctttncag agtccaggga ttncaggttg aataccaaga ctt           773
```

        <210> 483
        <211> 794
        <212> DNA
        <213> Homo Sapiens

        <400> 483

```
cattagtagc tgttnattga tcaanggttn gatataaagt tatttcanat cttcanactt     60
ttgcccagat ggaatcacaa gcattacaaa gttttttctt aaaaataaaa aaaggatagg    120
ggcaagttgg gaggggacca acctagcagt agnggcattt ganaataaat tancaaaaaa    180
atttagtatt accattnatt gatgacaaac acttaagttt tacttacatt ccatgggggag    240
aaaaattcca gcgtaaacaa tgaatggaag cagtacttaa ctcgcagggc taccaggctt    300
tccatacgga ccacacgcag agcctcagng cacacacttc tgtgtncagt ancacaacat    360
caaaagcaac acagntgtat acagaaacgt aggtcattct tttcagccct aanggagatg    420
taattaacag tatcgagcac tntggaaaat cactctgcag gtttatatgg actacatgga    480
gatcatatcc tgtagtgtag tgaaagctaa gtcctcaaga gccatatgta tagatncaca    540
atgttttta ataatcttta aaacagagat caaagttcat ttaagncctg tttgcattac    600
caaaaataaa aatgaaataa aaatggaacc aaatgaacat ctaangttta aaattcctaa    660
atnggccaat ttatncaact ggngggggaga cttattcaag ggttttgaaa gtccaggaac    720
tggtttcaag ctggaacccca gggggggcccc acaatttggc attcnctgga aactggccct    780
ggggttaagc caaa                                                       794
```

        <210> 484
        <211> 788
        <212> DNA
        <213> Homo Sapiens

        <400> 484

```
caagaccaga aggaaatgca cagttggata agatgggggtt cacaattatc agaaaatgca     60
tcagtgccgt tgaaacacga ggtataaatg accaaggatt gtacagagtt gtggggggtga    120
gttcaaaggt ccagagactt ctgagtatgt tgatggatgt aaaaacatgc aatgaggtgg    180
acctggagaa ttctgcagat tgggaagtga agacaataac aagtgccttg aaacagtatt    240
tgaggagtct tccagagcct ctcatgacct atgagttaca tggagatttc attgttccag    300
```

```
ccaaaagcgg cagcccagaa tctcgtgtta atgcgatcca tttcttggta cacaaactgc      360
cagagaagaa taaagagatg ttggatattt tggtgaaaca cttaacaaat gtttcaaatc      420
actccaagca gaacctgatg actgtggcaa acttaggagt ggtgtttgga ccaactctga      480
tgaggccaca ggaagaaact gtcgctgcct catggacttg aagtttcaga atattgttgt      540
ggaaatctta attgaaaacc atgaaaagat ttttcggacg ccgnccgata ctacattccc      600
tgagcccacc tgcctgtcag catcacccc  aaatgcgcca ccaangcagt cnaagagaca      660
aggncagaga accaagaagg cccgtgggcc gtctacaatc tttggctgga gctggaaaga      720
tggtgacaat ccttacccct tccanggagg acacccctta ccacagtctg gactcacttt      780
tcttcccg                                                              788
```

        <210> 485
        <211> 430
        <212> DNA
        <213> Homo Sapiens

        <400> 485

```
agtaaattac agtttatttc atttacagag accttgaggc aaaaaggtgg tgtttggaaa       60
acagcacacg ggtgaggagc accggagaag cctgttacaa atacgccagt gcacgctgcc      120
agtgcagtga gtgtggggtc ctgcaggtgg ccgtctagga agggcaggct tgagacgcgc      180
gtctctgctt ccctntgact tgagaccatc tcccttgnac caacagcagc ttntccaagc      240
taggctgcca cagccaagca cacactctgc aaacctatca ctgcgagtng tacagttccc      300
tttanaatcg nagcagcang tgctcaggga ggagagggag ccnnngtggc tctggtggcg      360
tgactgccag tgnaggcgga cacangtggc ataaggctgc ccgtcccctc tcattcttat      420
atgctgngat                                                            430
```

        <210> 486
        <211> 831
        <212> DNA
        <213> Homo Sapiens

        <400> 486

```
aaagtgtagt gccatcgaca caggctgtca cgttttcccc ttcttttcac aatcaagcaa       60
ttatggtgac aaaaccagtg caggaatata aaaaggaata cacagtgcag caggccttgt      120
tttgtacttc tggaattgtt acttctatac cggtgccctt ggcaggaagt gcccttctcc      180
catatcatat ttcatctact gcatgtcagg ccaaggctca tctgtcatct gatgatagta      240
attcaaatgg tgattctgcc caagtgcata ttgccacaaa aaacagagaa gaaaaagcag      300
cttgtctcag aaatatttgt ttaccttcag aacacaatcc aggtaatcag aatgatttta      360
aaccaactaa tgacgatatt gaaatgcaga gttcctcaaa attaccaaat gatcctgcaa      420
ttattagcaa cttttctgca gcagtggtgc atacgatagt aaatgaaact ttagagtcaa      480
tgacatcatt ggaagttaca aaaatggttg atgaacgtac agattattta actaaatctt      540
taaaggagaa aacccctcca ttttcccact gtgatcaggc agtgctgcaa tgcagtgaag      600
ctagtagcaa taaggacatg tttgctgacc ggttatctaa atctattatt aaacattcca      660
tagataagag caaatcagtg atcccaaata tagataaaaa tgcagtatac aaggaaagct      720
tgcctgtttc tggagaagaa tcacagttga cacccagaaa agtcttncca aatttnctga      780
ctcttcagaa tcagtttaac ttactggttc acttttagct gcaaaggaat g             831
```

        <210> 487
        <211> 728
        <212> DNA
        <213> Homo Sapiens

        <400> 487

```
gacggagtct gtctctgtcg cccaggatgg agtacagtgg cacaatctca gctcactgca       60
atctctgcct cccaggttca agcaattctc ctgccttagc ctcccaagta gctgggatta      120
caggtgcctg ccaccacgcc tggctaattt ttgtattttt ggtagagacg gggtttcacc      180
```

```
atgttgccca ggctggtctt gaactcctga cctcaagtga tccacccccca cccccattgg      240
cttcccagag ttctgggatt acaggcgtga atcaccgcgc ccagcccaaa tcgccgaagt      300
ctttatctcc taccttgatc tctgtagcag aaaagaacag tatagatatc aattgtcatc      360
aacagatgca acatatcttg taaatcaata tattttcaag tgaggtctct gaatcacctg      420
cactgaaatc atctgtgatg cttatcaagc atgcagattc tcaggaccct tcactgactt      480
cataaatctt catctctgga ggtgagaccc tggacactgt atatgcaacg agcacaccac      540
caatcctgga tgagccccgc ttttctctg tgccagaacc ttaatgccac gcagcattac      600
attaagtcac attacaactt tggtcaatgg aaacacaggg tcttttttctg acaaaatgcc      660
atcaagccag gtttggctcc ccacttaagt tcaaatnttt aatcattaat tttctgagcc      720
taaaatgc                                                              728
```

```
        <210> 488
        <211> 788
        <212> DNA
        <213> Homo Sapiens

        <400> 488
```

```
gtgggccctg tcctttctcc ccagctcctg ccccggagcc gggccctggc gaggcaggaa       60
tggccccgag gcctccgacc gccgcgcccc aggaatcagt gacattcaaa gatgtgtctg      120
tggacttcac ccaggaagaa tggtaccatg tcgaccctgc tcagaggagc ttatacaggg      180
atgtgatgct ggagaactat agccacctgg tttctcttgg atatcaagtt tccaagccag      240
aggtgatctt caaattggag caaggagaag agccatggat atcagaggga gaaatccaac      300
gaccttctcta tccagactgg aagaccaggc ctgaagtcaa atcatcacat ttgcagcagg      360
atgtatcaga agtatccac tgcacacatg atctcttaca tgctacatta gaagactcct      420
gggatgttag cagccagtta gacgggcaac aggaaaactg gaagagacat ctgggatcag      480
aggcatccac ccagaagaaa ataattacac cacaagaaaa ttttgagcaa aataaatttg      540
gtgaaaattc tagattgaac accaatttgg ttacacaact gaacattcct gcaagaataa      600
ggcctagtga atgtgagacc cttggaagca atttgggaca taatgcagac ttacttaatg      660
agaataatat tcttgcaaaa aagaaaccct tttagtgnga taatgtagaa aagncttan      720
tcatagatca tcgnttacta aaccttgaga aaaccccctta anggaaaagg gagctttcct      780
aatgggac                                                              788
```

```
        <210> 489
        <211> 875
        <212> DNA
        <213> Homo Sapiens

        <400> 489
```

```
aaagagatgg ggtttcacca tgttgtccag gctggtcttg aactctgggt tcaagcagtc       60
tatctgcctt agccacccaa agtgctggga ttacaggtgt gagacaccat acctagccaa      120
gttaattttt ttaatggtga atcttttct ttgcacataa aatgagccag tgcatgttgc      180
ttctctgagt acaagacaaa atttatggca atgggcaatt agacttatac ttttctgcaa      240
gaaaattaac gggaaaattc tcctcttagt tttctgttgt tttcccattg atctgatact      300
gtaggcttaa gaaagtgctt tttcatgggc atgccataaa aagtacaata aggggactta      360
atagttctgt gaaactggca tatgttagct gaaagtataa ttgtaactgg aaaagggga      420
aaaaagtcac tagtagttca accatctaca gtttctgtta aattgtggtt tgtaagcctc      480
caagaagttg ctttaaatag tttgtgataa atttgcatac attttgctcc cacttatact      540
tttaagaatt ctcaaagtgt ccaacccata ggtgcccatt aaatgtttgt gtatctgatc      600
atcttaaaat ttattttaaa gccctctgag tcccaaaaat aacctttca ctggcaaggc      660
catgggccc caaatccagg aaaccctggc atttttaacc caactttac ccttataggc      720
tggaatcata ctgngggaaa cccacttcac atctttggc tttcagtctt caatctgncc      780
cnaatggaaa atgggttggg cctagttgga actaaattct tttgaatggg ggactttcct      840
ggaaattggg aactnggttt ccatgggggga aagtt                              875
```

```
        <210> 490
```

```
        <211> 844
        <212> DNA
        <213> Homo Sapiens

        <400> 490
aagtgtttga gattgcactt aaacggaact tgcctgtgaa tttcgaggtg gcccgggaga        60
gtggcccacc ccacatgaag aactttgtga ccaaggtttc ggttggggag tttgtggggg       120
aaggtgaagg gaaaagcaag aagatttcaa agaaaaatgc cgccatagct gttcttgagg       180
agctgaagaa gttaccgccc ctgcctgcag ttgaacgagt aaagcctaga atcaaaaaga       240
aaacaaaacc catagtcaag ccacagacaa gcccagaata tggccagggg atcaatccga       300
ttagccgact ggcccagatc cagcaggcaa aaaaggagaa ggagccagag tacacgctcc       360
tcacagagcg aggcctcccg cgccgcaggg agtttgtgat gcaggtgaag gttggaaacc       420
acactgcaga aggaacgggc accaacaaga aggtggccaa gcgcaatgca gccgagaaca       480
tgctggagat ccttggtttc aaagtcccgc aggcgcagcc caccaaaccc gcactcaagt       540
cagaggagaa gacacccata aagaaaccag gggatggaag aaaagtaacc ttttttgaac       600
ctgctcttgg ggatgaaaat gggactagta ataaagagga tgagttcagg atgccttatc       660
taagtcatca gcagctgcct gctggaattc tttccatggt gcccgangtc gcccaagctg       720
taggaagtta gtcaaggaca tnacacccaa gattttacca ggcagcttcg aatcttccca       780
nggcncngta ctgccatgat agcccanagt tgttgtattg gggcancttt gccccaggcc       840
ggga                                                                    844

        <210> 491
        <211> 825
        <212> DNA
        <213> Homo Sapiens

        <400> 491
cattagtagc tgtttattga tcaatggttt gatataaagt tatttcanat cttcagactt        60
ttgcccagat ggaatcacaa gcattacaaa gttttttctt aaaaataaaa aaaggatagg       120
ggcaagttgg gaggggacca acctagcagt agtggcattt gagaataaat taacaaaaaa       180
atttagtatt accatttatt gatgacaaac acttaagttt tacttacatt ccatggggag       240
aaaaattcca gcgtaaacaa tgaatggaag cagtacttaa ctcgcagggc taccaggctt       300
tccatacgga ccacacgcag agcctcagtg cacacacttc tgtgtacagt aacacaacat       360
caaaagcaac acagctgtat acagaaacgt aggtcattct tttcagccct aatggagatg       420
taattaacag tatcgagcac tctggaaaat cactctgcag gtttatatgg actacatgga       480
gatcatatcc tgtagtgtag tgaaagctaa gtcctcaaga gccatatgta tagatacaca       540
atgttttta ataatcttta aaacagagat caaagttcat ttaaagtcct gtttgcatta       600
acaaaaataa aaatganaat aaaaatggac caaatgatca tctaaagttt aaaattccta       660
aatggtccaa tttatacaac tgggggagac ttattcaagg tttttgaaag tccaggactg       720
gtttcagctg aaccagangg cccccaattt gcatcactgg aactgncctg ggtttagcca       780
aggaaattaa aaaagncttaa acccccttcc cctgggattt gaacc                     825

        <210> 492
        <211> 946
        <212> DNA
        <213> Homo Sapiens

        <400> 492
gaggacagca atttaatggc aaaggaaaga caagacaggc tgcgaaacac gatgctgctg        60
ccaaagcgtt gaggatcctg cagaatgagc ccctgccaga gaggctggag gtgaatggaa       120
gagaatccga agaagaaaat ctcaataaat ctgaaataag tcaagtgttt gagattgcac       180
ttaaacggaa cttgcctgtg aatttcgagg tggcccggga gagtggccca ccccacatga       240
agaactttgt gaccaaggtt tcggttgggg agtttgtggg ggaaggtgaa gggaaaagca       300
agaagatttc aaagaaaaat gccgccatag ctgttcttga ggagctgaag aagttaccgc       360
ccctgcctgc agttgaacga gtaaagccta gaatcaaaaa gaaaacaaaa cccatagtca       420
```

                                  -257-

```
agccacagac aagcccagaa tatggccagg ggatcaatcc gattagccga ctggcccaga        480
tccagcaggc aaaaaaggag aaggagccag agtacacgct cctcacagag cgaggcctnc        540
cgcgccgcag ggagtttgtg atgcaggtga aggttggaaa ccacacttgc agaaggaacg        600
ggcaccaaca agaaggtggc caagcgcaat gcacccgaga acatgctgga gatccttggt        660
ttcaaaagtc ccgcangcgc agcccaccaa acccggactn aagtcagang agaagacccc        720
attaaggaaa ccangggatg gaagaaaagt ancnttttga anctggctnt tgggattaaa        780
atgggcttgt antaaagagg atgagttcag gatgncntat ctaagtcatn aacacttgct        840
gctggaaatc tttccatggg ggccgaggtc nccagctttt taggagttat canggccntt        900
ccncccaaga attttcccgg gcagtttcca atctgccaag gccccg                       946
```

        <210> 493
        <211> 804
        <212> DNA
        <213> Homo Sapiens

        <400> 493
```
ggtctttatg tgcttaaata acgctgaatt ataattagcc acacaaataa tgagagtttt         60
attttttttt tctggctcac tccaaatcag cctgttaagg tatatttcct tctacagcct        120
ttcctgattt tgcatgttct cattcccaaa gtagtctacc ttagtttaca ctcaaaggta        180
gcacttgttg aaactacatg acagaaacag gctgcaaagg tggacaaggg gaagcatgtc        240
cctcttgtct tgataaatca gtgccacaca cagaacccac attttctgag acattatctt        300
cattatagag ccgtttgatt ccatcataga agtcatccac ttccatttcc tctactttgc        360
gtttagtaga ggtctgcttg cacccactgg cagctgggag atgatggtaa aaggctgctg        420
tacctctgac tggcacttct ggcttgctgt tgtccttgga gaagtctggg cctgggacag        480
aggagggatg taatctgaac actcctttgt cacaggtcac cagggtgtgc ttgaggggac        540
ggtagacata aacggaattc agaggcaggg aagactgcag agtanaaagg tgatgtgccc        600
aagcttccga ccatggatca actgggagct atncatctgg ctttctgaag cagntcaatt        660
gtaagagaaa gcccaatccn ggaatggagt tcntccattt tcagactaac cctgggcncn        720
aagcaaggca tgggatcccc tggaattgcc anaaanttgg gttgcagggn ccatacncgg        780
nggnaagtaa ttngctttgg gtaa                                               804
```

        <210> 494
        <211> 856
        <212> DNA
        <213> Homo Sapiens

        <400> 494
```
gaaaggttgg aaagaataaa tagggccagg gaacaaggat ggagaaatgt gctaagtgct         60
ggtggaagtg gtgaagtaaa ggctcctttt ctgggcagtg gagggactat agctccatca        120
tcttttttctt ctcgaggaca gtatgaacat taccatgcca tttttgacca aatgcagcaa        180
caaagagcag aagataatga agctaaatgg aaaagagaaa tatatggtcg aggtcttcca        240
gaaaggcaaa aagggcagct agctgtagaa agagctaaac aagtagaaga gttcctgcag        300
cgaaacgggg aagctatgca gaataaagct cgagccgaag gacatatggg aatcctgcaa        360
aacctggcag ctatgtatgg aggcaggccc agctcttcaa gaggagggaa gccaagaaac        420
aaagaggaag aggtttatct ggcaagactg aggcaaataa gactacagaa tttcaatgag        480
cgccaacaga ttaaagccaa acttcgtggt gaaaagaaag aagctaatca ttctgaagga        540
caagaaggaa gtgaagaggc tgacatgagg cgcaaaaaaa atcgaatcac tgaaggccca        600
tgcaaatgca cgtgctgctg tctaaaagaa cactagaacg aaagagaaag gaggcttatg        660
agagagaaaa aaaagtgtgg gaagagcatt tggtggctaa aggagttaag agtctgatgg        720
ttcttccct ttgggaccag catgaaacaa ggtggctttt ccttcaaagc caccggatga        780
aaanctggta nttctggnac ttcactttn aagaanttgg ccgtggnngt agtttaactg        840
gatacccggg aacttc                                                        856
```

        <210> 495
        <211> 757

```
       <212> DNA
       <213> Homo Sapiens

       <400> 495
agataataaa aatttaatag caatatcata aaataaacac acatattaaa aaatcaagta      60
tttagtttcg gatattagaa ataatataca taataaattc aacatactga tagtgctgca     120
agataagatt ttatttttca aattacatat tatgccaacc agcctgcttt ggactcagag     180
gttcaaaaac tttgctttta ttacgaagaa catntggact gtagacacct ntaacgaaac     240
caggttatac ttggcatatt gngattgaag ctgtgtgatc aacatcttaa tgacctaact     300
aaatcctntc ataacagaaa gaagttcaac aggcaaacat ttccctccct aggatcctag     360
ttaccaaaac tgtcacagng ncaaaataaa aataattatt tcctcctttt taacatctta     420
ttgnccttga agcttatgta tggaggaagt taaaaaccaa aagagcaact ttaagctata     480
tgctaagtca gngttaaatc cacagactaa tttttcgata tagnattcct ggntctggnc     540
cttaaagaga aataaaggca ttaaaccact tttttatatg tcaaggaaat ataatttngc     600
tattctttca taatcaaatc tttcaatgga tttctaagac tggnttctac agcctgngng     660
ctagttccag gggacacact gattgtaaaa nggacttggn ggaaatntaa aactttaagg     720
gctaaaaaat ttcatctttc aaaatgntnt agatgtt                             757

       <210> 496
       <211> 1759
       <212> DNA
       <213> Homo Sapiens

       <400> 496
cgaggatcca ggcgcaggag gacagagcaa tgggtgagag aactcttcac gctgcagtgc      60
ccacaccagg ttatccagaa tctgaatcca tcatgatggc ccccatttgt ctagtggaaa     120
accaggaaga gcagctgaca gtgaattcaa aggcattaga gattcttgac aagatttctc     180
agcccgtggt ggtggtggcc attgtagggc tataccgcac aggaaaatcc tatctcatga     240
atcgtcttgc aggaaagcgc aatggcttcc ctctgggctc cacggtgcag tctgaaacta     300
agggcatctg gatgtggtgt gtgccccacc tctctaagcc aaaaccacacc ctggtccttc     360
tggacaccga gggcctgggc gatgtagaaa agagtaaccc taagaatgac tcgtggatct     420
ttgccctggc tgtgcttcta agcagcagct ttgtctataa cagcgtgagc accatcaacc     480
accaggccct ggagcagctg cactatgtga ctgagctagc agagctaatc agggcaaaat     540
cctgccccag acctgatgaa gctgaggact ccagcgagtt tgcgagtttc tttccagact     600
ttatttggac tgttcgggat tttaccctgg agctaaagtt agatggaaac cccatcacag     660
aagatgagta cctggagaat gccttgaagc tgattccagg caagaatccc aaaattcaaa     720
attcaaacat gcctagagag tgtatcaggc atttcttccg aaaacggaag tgctttgtct     780
ttgaccggcc tacaaatgac aagcaatatt taaatcatat ggacgaagtg ccagaagaaa     840
atctggaaag gcatttcctt atgcaatcag acaacttctg ttcttatatc ttcacccatg     900
caaagaccaa gaccctgaga gagggaatca ttgtcactgg aaagcggctg gggactctgg     960
tggtgactta tgtagatgcc atcaacagtg gagcagtacc ttgtctggag aatgcagtga    1020
cagcactggc ccagcttgag aacccagcgg ctgtgcagag ggcagccgac cactatagcc    1080
agcagatggc ccagcaactg aggctccca cagacacgct ccaggagctg ctggacgtgc     1140
atgcagcctg tgagagggaa gccattgcag tcttcatgga gcactccttc aaggatgaaa    1200
accatgaatt ccagaagaag cttgtggaca ccatagagaa aagaagggga gactttgtgc    1260
tgcagaatga gaggcatct gccaaatatt gccaggctga gcttaagcgg ctttcagagc    1320
acctgacaga aagcattttg agaggaattt tctctgttcc tggaggacac aatctctact    1380
tagaagaaaa gaaacaggtt gagtgggact ataagctagt gcccagaaaa ggagttaagg    1440
caaacgaggt cctccagaac ttcctgcagt cacaggtggt tgtagaggaa tccatcctgc    1500
agtcagacaa agccctcact gctggagaga aggccatagc agcggagcgg gccatgaagg    1560
aagcagctga gaaggaacag gagctgctaa gagaaaaaca gaaggagcag cagcaaatga    1620
tggaggctca agagagaagc tttcaggaat acatggncca aatggagaag aagttggagg    1680
angaaaggga aaaccntntc agagagcctt gaaaaggttg ctaaaacaca agcttgaagg    1740
tncagaagaa aatgcttaa                                                 1759
```

```
            <210> 497
            <211> 842
            <212> DNA
            <213> Homo Sapiens

            <400> 497
atgacaagca atatttaaat catatggacg aagtgccaga agaaaatctg gaaaggcatt      60
tccttatgca atcagacaac ttctgttctt atatcttcac ccatgcaaag accaagaccc     120
tgagagaggg aatcattgtc actggaaagc ggctggggac tctggtggtg acttatgtag     180
atgccatcaa cagtggagca gtaccttgtc tggagaatgc agtgacagca ctggcccagc     240
ttgagaaccc agcggctgtg cagagggcag ccgaccacta tagccagcag atggcccagc     300
aactgaggct ccccacagac acgctccagg agctgctgga cgtgcatgca gcctgtgaga     360
gggaagccat tgcagtcttc atggagcact ccttcaagga tgaaaaccat gaattccaga     420
agaagcttgt ggacaccata gagaaaaaga agggagactt tgtgctgcag aatgaagagg     480
catctgccaa atattgccag gctgagctta agcggctttc agagcacctg acagaaagca     540
ttttgagagg aattttctct gttcctggag gacacaatct ctacttagaa gaaaagaaac     600
aggttgagtg ggactataag ctagtgccca gaaaaggagt taaggcaaac gaggtcctcc     660
agaacttcct gcagtcacan gtggttgtag aggaatccat cctgcagtca gacaaagccc     720
tcactgctgg agagaaggcc atacaaccgg aaccgggcca tgaaggaagc acttgagaag     780
gaacaggagc tgcttagaga aaaaccgaag gagccagcag ccaaatggat ggaggctcaa     840
ga                                                                    842

            <210> 498
            <211> 707
            <212> DNA
            <213> Homo Sapiens

            <400> 498
gagcaataaa gcttttaat cacctgggtg caggctggct gagtccgaaa agacagtcag       60
tgaagggaga tagggttggg accattttac aggatttggg ttggtaaagg aaaattacag     120
tcaaagggg ttgttctctg gcggcagag gtgggtgtca caagttgctt agtgggggag     180
ctttttgagcc aggatgagcc aggagaagga atttcacaag gtaatgtcat cagttaaggc     240
aggaacaggc cattttcact tcttttgtga ttcttcactt gcttcaggcc atctggacgt     300
atgtacatgc aggtcacagg ggatatgatg cttagcttg ggctcagagg cctgacattt     360
agtatattta ctggaatatt caggctctta aatacgtgag ccaagatatt ttgtccctac     420
tccaagtagc ttggaagccc caggtagagt gacaatcatt atgttgctag ccatgtcaag     480
gatctttaag agccttaact gttcatttt agtgctttca attttttctt tcagttgatt     540
aatctcttta tttaactgct cagatttctt ttgaaattct tccttaagca tttcttcttg     600
naccttcagc ttggggttta acagcctttc atgctctctg aaaagggttt nccttttcctn     660
cttcaacttc ttctccattt gggccatgna ttcctggaag cttctct                  707

            <210> 499
            <211> 772
            <212> DNA
            <213> Homo Sapiens

            <400> 499
gtggagcagt accttgtctg gagaatgcag tgacagcact ggcccagctt gagaacccag       60
cggctgtgca gagggcagcc gaccactata gccagcagat ggcccagcaa ctgaggctcc      120
ccacagacac gctccaggag ctgctggacg tgcatgcagc ctgtgagagg gaagccattg      180
cagtcttcat ggagcactcc ttcaaggatg aaaaccatga attccagaag aagcttgtgg      240
acaccataga gaaaaagaag ggagactttg tgctgcagaa tgaagaggca tctgccaaat      300
attgccaggc tgagcttaag cggctttcag agcacctgac agaaagcatt ttgagaggaa      360
ttttctctgt tcctggagga cacaatctct acttagaaga aaagaaacag gttgagtggg      420
actataagct agtgcccaga aaaggagtta aggcaaacga ggtcctccag aacttcctgc      480
```

```
agtcacaggt ggttgtagag gaatccatcc tgcagtcaga caaagccctc actgctggag     540
agaaggccat agcagcggag cgggccatga aggaagcagc tgagaaggaa caggagctgc     600
taagagaaaa acagaaggag cagcagcaaa tgatggaggc tcaagagaga agctttcagg     660
aatacatggn ccaaatggag aagaagttgg aggangaaag ggaaaaccnt ntcagagagc     720
cttgaaaagg ttgctaaaac acaagcttga aggtncagaa gaaaatgctt aa             772
```

        <210> 500
        <211> 787
        <212> DNA
        <213> Homo Sapiens

        <400> 500

```
ggctgttttt agtttttttct tgatttcaaa tcttctttc aacacctccc tcttctctat     60
gcgattgaac agttcttgct ctctctcttt ctctgtcatc tgttccagac gggccctgtc    120
ttcctcatct cccatgaggt cttctccata gccatcatgg aactcttcat cttctgagga    180
agagtctgaa tctgaactgg aagaggagct gttgctgtca gagtctgaca cttcaccttc    240
ctcaggggct gagctctcag ctgaactgtc tttgtctgaa ctgcctgagg aggcagtttt    300
gttggcctgt ttcttcatgg ttcctttctt ctctattttt ctggctttc ctttcttctt    360
attttctcg tgccgaattc ggcacgagga actattcgag ttttttttt tttttttttt    420
tgagacggag tctcgctccg tcgcccaggc tggagtgcag cggcgcgatc tcgactcact    480
gcaagctccg cctcccgggc ccacgccatt ctccgcccc agcctcccgt gtagctggga    540
ctacaggcgc gtgccaccac gcccggccaa ttttgcatt tttagcanag acggggtttc     600
accgggttag ccaggaaggg ctcgatcccc tgacctcgng atccaccgt cttggcctcc     660
caaagtgctg ggacccacag gcaatgagtt ggattttttaa ctactgggtt taaggccagg    720
caggccccag gcctgggttt tgggcctggc nctggcctgn ccggccttgg gtttaccttc    780
ctggggg                                                             787
```

        <210> 501
        <211> 886
        <212> DNA
        <213> Homo Sapiens

        <400> 501

```
agttntnacc gctcgnctcg cgcgcctgca ggtcgacact agtggatcca aagcgggatt     60
ttaccctgga gctaaagtta gatggaaacc ccatcacaga agatgagtac ctggagaatg    120
ccttgaagct gattccaggc aagaatccca aaattcaaaa ttcaaacatg cctagagagt    180
gtatcaggca tttcttccga aaacggaagt gctttgtctt tgaccggcct acaaatgaca    240
agcaatattt aaatcatatg gacgaagtgc cagaagaaaa tctggaaagg catttcctta    300
tgcaatcaga caacttctgt tcttatatct tcacccatgc aaagaccaag accctgagag    360
agggaatcat tgtcactgga aagcggctgg ggactctggt ggtgacttat gtagatgcca    420
tcaacagtgg agcagtacct tgtctggaga atgcagtgac agcactggcc cagcttgaga    480
acccagcggc tgtgcagagg gcagccgacc actatagcca gcagatggcc cagcaactga    540
ggctccccac agacacgctc caggagctgc tggacgtgca tgcagcctgt gagagggaag    600
ccattgcagt cttcatggag cactccttca aggatgaaaa ccatgaattc cagaagaagc    660
ttgtggacac catagagaaa aagaagggag actttgtgct gcagaatgaa gaggcatctg    720
ccaaatattg ccaggctgac ttaagcggct ttcagagcac ctgacagaaa gcattttgag    780
aggaatttttc tctggtcctg gaggacacaa tctctactta gaagaaagga aacaggntga    840
gtggggacta ttagctagtg nccagaaaag gagttaaggc aaacga                  886
```

        <210> 502
        <211> 626
        <212> DNA
        <213> Homo Sapiens

        <400> 502

```
gggagcaata aagcttttta atcacctggg ngcaggctgg ctgagtccna aaagacagtc          60
agngaaggga nanagggttg ggaccatttt acaggatttg ggttggtaaa ggaaaattac         120
ngtcaaaggg ggttgttctn tggcgggcaa aggggggngt cacaagttgc ttannggggg         180
anctttgag ccaggatgan ccnggaaaag gaatttcnca aggnaatggc atcagttaag          240
gcaggaacag gccattttca cttnttttgg gantcttcac ttgcttcagg ccatntggaa         300
nattcaggct nttaaanacn ngagccnana nattttggcc ctactccaag tagcttggaa         360
nccccaggta aagggacnat cattatgntg ctagccntgt caaggatntt taaaagcctt         420
aactggncat ttttanggct ttcaattttt tnttttagtn gattaancnc tttatttaac        480
ngctcaaatt tcttttgaaa ntnttcctta agcntttctt cttgnccttn ancttgggnt         540
ttancagcct ttcatgcnct ttgaaaaggn tttccctttc ctcctccaac ttcntctcca         600
tttgggccca tgntattncc tgggaa                                              626
```

        <210> 503
        <211> 884
        <212> DNA
        <213> Homo Sapiens

        <400> 503

```
cgaggatcca ggcgcaggag gacagagcaa tgggtgagag aactcttcac gctgcagtgc          60
ccacaccagg ttatccagaa tctgaatcca tcatgatggc ccccattgt ctagtggaaa          120
accaggaaga gcagctgaca gtgaattcaa aggcattaga gattcttgac aagatttctc         180
agcccgtggt ggtggtggcc attgtagggc tataccgcac aggaaaatcc tatctcatga         240
atcgtcttgc aggaaagcgc aatggcttcc ctctgggctc cacggtgcag tctgaaacta         300
agggcatctg gatgtggtgt gtgccccacc tctctaagcc aaaccacacc ctggtccttc         360
tggacaccga gggcctgggc gatgtagaaa agagtaaccc taagaatgac tcgtggatct         420
ttgccctggc tgtgcttcta agcagcagct ttgtctataa cagcgtgagc accatcaacc         480
accaggccct ggagcagctg cactatgtga ctgagctagc agagctaatc agggcaaaat         540
cctgccccag acctgatgaa gctgaggact ccagcgagtt tgcgagtttc tttccagact         600
ttatttggac tgttcgggat tttaccctgg agctaaagtt agatggaaac cccatcacag         660
aagatgagta cctggagaat gccttgaagc ttgantncag gcaagaatnc caaaantcaa         720
aattcaaaca tgcctagaga gtgnattaag gcantttctt ccgaaaaccg gaagtgcttt         780
tgcctttgac cgggctacaa atggacaagc caatatttaa aatcattntg gacnaantgc         840
cngaagaaaa tctggaaagg catttcctta tgccatcaga caac                         884
```

        <210> 504
        <211> 612
        <212> DNA
        <213> Homo Sapiens

        <400> 504

```
gagacggagt ttcgctctgt cgcccaggct ggagtgcagt ggcgcgatct cgactcactg          60
caagctccgc ctcctgggtt cacgccattc tcctgcctca gcctcccgtg tagctgggac         120
tacaggcgcg tgccaccatg cccggctaat ttttgtattt ttagtagaga cggggtttca        180
ccgtgttagc caggatggtc tcgatctcct gacctcgtga tccacccgtc tcggcctccc        240
aaagtgctgg gattacaggc aatgagttga tttttaacta ctgggtttag gccaggcagg        300
cccaggcctg gttttgggcc tggcgctggg ctgcctgtct ttggttttac ttccttggtg        360
nttttctta aaacaggtac tgagtatcaa acaatataaa acaatataag aaggtctctc         420
tcttccctca attctagctg caagttttga gcactagaca gcagaaataa attcctaaaa        480
tgttgagttg agcaaatagt tcaatgctat ccctatcaaa ctaccaatga cattntttac        540
nagaaattag aaactacttt aaaaatttca tatgggaacn aaaaaagagc cttacccnag        600
gcnaanccta aa                                                             612
```

        <210> 505
        <211> 2215
        <212> DNA

<213> Homo Sapiens

<400> 505

```
ctcagatgct cactgcagtc caagagatct cccatctcat tgagccgctg gccaatgctg      60
cccgggctga agcctcccag ctgggacaca aggtgtccca gatggcgcag tactttgagc     120
cgctcaccct ggctgcagtg ggtgctgcct ccaagaccct gagccacccg cagcagatgg     180
cactcctgga ccagactaaa acattggcag agtctgccct gcagttgcta tacactgcca     240
aggaggctgg tggtaaccca aagcaagcag ctcacaccca ggaagccctg gaggaggctg     300
tgcagatgat gaccgaggcc gtagaggacc tgacaacaac cctcaacgag gcagccagtg     360
ctgctggggt cgtgggtggc atggtggact ccatcaccca ggccatcaac cagctagatg     420
aaggaccaat gggtgaacca gaaggttcct tcgtggatta ccaaacaact atggtgcgga     480
cagccaaggc cattgcagtg actgttcagg agatggttac caagtcaaac accagcccag     540
aggagctggg ccctcttgct aaccagctga ccagtgacta tggccgtctg gcctcggagg     600
ccaagcctgc agcggtggct gctgaaaatg aagagatagg ttcccatatc aaacaccggg     660
tacaggagct gggccatggc tgtgccgctc tggtcaccaa ggcaggcgcc ctgcagtgca     720
gccccagtga tgcctacacc aagaaggagc tcatagagtg tgcccggaga gtctctgaga     780
aggtctccca cgtcctggct gcgctccagg ctgggaatcg tggcacccag gcctgcatca     840
cagcagccag cgctgtgtct ggtatcattg ctgacctcga caccaccatc atgttcgcca     900
ctgctggcac gctcaatcgt gagggtactg aaactttcgc tgaccaccgg gagggcatcc     960
tgaagactgc gaaggtgctg gtggaggaca ccaaggtcct ggtgcaaaac gcagctggga    1020
gccaggagaa gttggcgcag gctgcccagt cctccgtggc gaccatcacc cgcctcgctg    1080
atgtggtcaa gctgggtgca gccagcctgg gagctgagga ccctgagacc caggtggtac    1140
taatcaacgc agtgaaagat gtagccaaag ccctgggaga cctcatcagt gcaacgaagg    1200
ctgcagctgg caaagttgga gatgaccctg ctgtgtggca gctaaagaac tctgccaagg    1260
tgatggtgac caatgtgaca tcattgctta agacagtaaa agccgtggaa gatgaggcca    1320
ccaaaggcac tcgggccctg gaggcaacca cagaacacat acggcaggag ctggcggttt    1380
tctgttcccc agagccacct gccaagacct ctaccccaga agacttcatc cgaatgacca    1440
agggtatcac catggcaacc gccaaggccg ttgctgctgg caattcctgt cgccaggaag    1500
atgtcattgc cacagccaat ctgagccgcc gtgctattgc agatatgctt cgggcttgca    1560
aggaagcagc ttaccaccca gaagtggccc ctgatgtgcg gcttcgagcc ctgcactatg    1620
gccgggagtg tgccaatggc tacctggaac tgctggacca tgtactgctg accctgcaga    1680
agccaagccc agaactgaag cagcagttga caggacattc aaagcgtgtg ctggttccg     1740
tcactgagct catccaggct gctgaagcca tgaagggaac agaatgggta gacccagagg    1800
accccacagt cattgctgag aatgagctcc tgggagctgc agccgccatt gaggctgcag    1860
ccaaaaagct agagcagctg aagccccggg ccaaacccaa ggaggcagat gagtccttga    1920
actttgagga gcagatacta gaagctgcca gtccattgc agcagccacc agtgcactgg     1980
taaaggctgc gtcggctgcc agagagaact agtggcccaa gggaaagtgg gtgccattcc    2040
aagcaatgca ctggacgatg ggcagtggtc ccangggcct catttctgct gcccngatgg    2100
tggcttgcgg ccaccaacaa nttgtgtgaa ggcagccaat gcaactgtcc aagggcatgc    2160
caagccngga anaactnatn ttattcagcc caacaggtaa cttgcctttc acaag         2215
```

        <210> 506
        <211> 742
        <212> DNA
        <213> Homo Sapiens

        <400> 506

```
ggcacgaggt aacccaaagc aagcagctca cacccaggaa gccctggagg aggctgtgca      60
gatgatgacc gaggccgtag aggacctgac aacaaccctc aacgaggcag ccagtgctgc     120
tggggtcgtg ggtggcatgg tggactccat cacccaggcc atcaaccagc tagatgaagg     180
accaatgggt gaaccagaag gttccttcgt ggattaccaa acaactatgg tgcggacagc     240
caaggccatt gcagtgaccg ttcaggagat ggttaccaag tcaaacacca gcccagagga     300
gctgggccct cttgctaacc agctgaccag tgactatggc cgtctggcct cggaggccaa     360
gcctgcagcg gtggctgctg aaaatgaaga gataggttcc catatcaaac accgggtaca     420
ggagctgggc catggctgtg ccgctctggt caccaaggca ggcgccctgc agtgcagccc     480
```

```
cagtgatgcc tacaccaaga aggagctcat agagtgtgcc cggagagtct ctgagaaggt      540
ctcccacgtc ctggctgcgc tccaggctgg gaatcgtggc acccaggcct gcatcacagc      600
agccagcgct gtgtctggta tcattgctga cctcgacacc accatcatgt tcgccacttg      660
ctggcacgct caatcgtgag ggtactgaaa ctttcgctga ccaccgggan ggcatnctga      720
agactgcgaa ngtgctggtg ga                                                742
```

```
        <210> 507
        <211> 735
        <212> DNA
        <213> Homo Sapiens


        <400> 507
gtaggtagaa tcatttttat tggagcatga cctgtttggg gcttataact ctgcagcccc       60
tatgggtagc tgggggtggg ggaagatagt atcaaaaaac ggtgaagaga gctgatgagg      120
ctgtggggac tggctggaag ctgctggcag ggtggagtgg gctggggccc cggcagattc      180
agatcgaggt acagcagcgt taataatact cttggagcgt taatactctg gggaggggca      240
ggcacttggg gggccctagg gcatgaaggc acttggggtt ggggagggga caggggatgt      300
actgcgggac tgggcggggc caggccctgg ggtttggcag gcactttggg gagtgctggg      360
gttgggcagg ttgggccccg acagcccaga aggctttggt agtggcacgc acagtctctg      420
ggccgggtct gcattaaata gaagaggctt ctttagtgct catctcgaag ctctgaaggc      480
agaaacttgt actgctgctg ccggatctgg gccagtttct tccgngcctc ttccagctct      540
cgttccttcc gaagcatttc ttcctgngct gcgatgatct gggcaatgcc cgccaaccat      600
cttctcttta ccaccactgg cttnattctc ctgctcttca aaggctgcaa ccttctgggc      660
tgntttnacc agattatctg angctcgctt cactgngttg ncagcaacct tgaatccgtt      720
tcatttgccc tccag                                                        735
```

```
        <210> 508
        <211> 666
        <212> DNA
        <213> Homo Sapiens


        <400> 508
gtaggtagaa tcatttttat tggagcatga cctgtttggg gcttataact ctgcagcccc       60
tatgggtagc tgggggtggg ggaagatagt atcaaaaaac ggtgaagaga gctgatgagg      120
ctgtggggac tggctggaag ctgctggcag ggtggagtgg gctggggccc cggcagattc      180
agatcgaggt acagcagcgt taataatact cttggagcgt taatactctg gggaggggca      240
ggcacttggg gggccctagg gcatgaaggc acttggggtt ggggagggga caggggatgt      300
actgcgggac tgggcggggc caggccctgg ggtttggcag gcactttggg gagtgctggg      360
gttgggcagg ttgggccccg acagcccaga aggctttggt agtggcacgc acagtctntg      420
ggccgggtct gcattaaata gaagaggctt ctttagtgct catctngaag ctctgaaggc      480
agaaacttgt actgctgctg ccggatctgg gccagttttc ttccgcgcct tttccagctc      540
tcgttccttt ccgaagcatt tcttcctgng ctgccatgat tctgggccat gcccgccaac      600
catcttctct tttacccanc attggcttna ttctcctgct ctttcaaaag gcttgnagnc      660
tttctg                                                                  666
```

```
        <210> 509
        <211> 818
        <212> DNA
        <213> Homo Sapiens


        <400> 509
ctcagatgct cactgcagtc caagagatct cccatctcat tgagccgctg gccaatgctg       60
cccgggctga agcctcccag ctgggacaca aggtgtccca gatggcgcag tactttgagc      120
cgctcaccct ggctgcagtg ggtgctgcct ccaagaccct gagccacccg cagcagatgg      180
cactcctgga ccagactaaa acattggcag agtctgccct gcagttgcta tacactgcca      240
```

```
aggaggctgg tggtaaccca aagcaagcag ctcacaccca ggaagccctg gaggaggctg      300
tgcagatgat gaccgaggcc gtagaggacc tgacaacaac cctcaacgag gcagccagtg      360
ctgctggggt cgtgggtggc atggtggact ccatcaccca ggccatcaac cagctagatg      420
aaggaccaat gggtgaacca gaaggttcct tcgtggatta ccaaacaact atggtgcgga      480
cagccaaggc cattgcagtg actgttcagg agatggttac caagtcaaac accagcccag      540
aggagctggg ccctcttgct aaccagctga ccagtgacta tggccgtctg gcctcggagg      600
ccaagcctgc agcggtggct gctgaaaatg aagagatagg ttccatatca aacaccgggt      660
acaggagctg ggccatggct tgtgccgctc tggtcaccaa ngcangcgcc ctgantgcaa      720
gcccagtgat gcctacccaa gaaggagctc atagagtgtg cccggagaag ttttttgaaag      780
gtcttccacg tnctggttgg cttcaagctt gggaatcg                              818
```

```
    <210> 510
    <211> 651
    <212> DNA
    <213> Homo Sapiens


    <400> 510
gtaggtagaa tcattttttat tggagcatga cctgtttggg gcttataact ctgcagcccc      60
tatgggtagc tgggggtggg ggaagatagt atcaaaaaac ggtgaagaga gctgatgagg      120
ctgtggggac tggctggaag ctgctggcag ggtgagtgg gctggggccc cggcagattc      180
agatcgaggt acagcagcgt taataatact cttggagcgt taatactctg gggaggggca      240
ggcacttggg gggccctagg gcatgaaggc acttggggtt ggggaggggga cagggggatgt      300
actgcgggac tgggcggggc caggccctgg ggtttggcag gcactttggg gagtgctggg      360
gttgggcagg ttgggccccg acagcccana aggctttggt agtggcacgc acagtctctg      420
ggccgggtct gcattaaata gaagaggctt ctttagtgct catctcgaag ctctgaaggc      480
aanaaacttg tactgctgct gcncggatct gggccanttt cttccgcgcc tcttccanct      540
ctcgttcctt ccgaagcatt tcttcctggc tgccgatgat ctggncaatg ccgccaacca      600
tcttctcttt caccaccact tggctcaatt cttcctggct ctttcaaagg c              651
```

```
    <210> 511
    <211> 712
    <212> DNA
    <213> Homo Sapiens


    <400> 511
gtaggtagaa tcattttttat tggagcatga cctgtttggg gcttataact ctgcagcccc      60
tatgggtagc tgggggtggg ggaagatagt atcaaaaaac ggtgaagaga gctgatgagg      120
ctgtggggac tggctggaag ctgctggcag ggtgagtgg gctggggccc cggcagattc      180
agatcgaggt acagcagccg ttaataatac tcttggagcg ttaatactct ggggaggggc      240
aggcacttgg ggggccctag ggcatgaagg cacttggggt tggggagggg acaggggatg      300
tactgcggga ctgggcgggg ccaggccctg gggtttggca ggcactttgg ggagtgctgg      360
ggttgggcag gttgggcccc gacagcccag aaggctttgg tagtggcacg cacagtctct      420
gggccgggtc tgcattaaat agaagaggct tctttagtgc tcatctcgaa gctctgaagg      480
cagaaacttg tactgctgct gccggatctg ggccagtttc ttccgcgcct cttccagctc      540
tcgttccttc cgaagcattt cttcctgtgc tgccgatgat ctgggcaatg cccggcaacc      600
atcttctctt ttaccaccac tgggctcatt ctcctgctct tcaaaangct gcagcccttt      660
tgggctgntt ttcaccagaa ttaatcttga ngcntcgctt tnacttgcgt tg              712
```

```
    <210> 512
    <211> 850
    <212> DNA
    <213> Homo Sapiens


    <400> 512
aggagctggc ggttttctgt tccccagagc cacctgccaa gacctctacc ccagaagact      60
```

```
tcatccgaat gaccaagggt atcaccatgg caaccgccaa ggccgttgct gctggcaatt          120
cctgtcgcca ggaagatgtc attgccacag ccaatctgag ccgccgtgct attgcagata          180
tgcttcgggc ttgcaaggaa gcagcttacc acccagaagt ggcccctgat gtgcggcttc          240
gagccctgca ctatggccgg gagtgtgcca atggctacct ggaactgctg gaccatgtac          300
tgctgaccct gcagaagcca agcccagaac tgaagcagca gttgacagga cattcaaagc          360
gtgtggctgg ttccgtcact gagctcatcc aggctgctga agccatgaag ggaacagaat          420
gggtagaccc agaggacccc acagtcattg ctgagaatga gctcctggga gctgcagccg          480
ccattgaggc tgcagccaaa aagctagagc agctgaagcc ccgggccaaa cccaaggagg          540
cagatgagtc cttgaacttt gaggagcaga tactagaagc tgccaagtcc attgcagcag          600
ccaccagtgc actggtaaag gctgcgtcgg ctgccagaga gaactagtgg cccaagggaa          660
agtgggtgcc attccaagca atgcactgga cgatgggcag tggtcccang ggcctcattt          720
ctgctgccccn gatggtggct tgcggccacc aacaanttgt gtgaaggcag ccaatgcaac          780
tgtccaaggg catgccaagc cnggaanaac tnatnttatt cagcccaaca ggtaacttgc          840
ctttcacaag                                                                  850
```

        <210> 513
        <211> 727
        <212> DNA
        <213> Homo Sapiens

        <400> 513

```
gtaggtagaa tcatttttat tggagcatga cctgtttggg gcttataact ctgcagcccc           60
tatgggtagc tgggggtggg ggaagatagt atcaaaaaac ggtgaagaga gctgatgagg          120
ctgtggggac tggctggaag ctgctggcag ggtggagtgg gctgggggccc cggcagattc         180
agatcgaggt acagcagcgt taataatact cttgagcgt taatactctg gggagggggca          240
ggcacttggg gggccctagg gcatgaaggc acttggggtt ggggaggggga caggggatgt          300
actgcgggac tgggcggggc caggccctgg ggtttggcag gcactttggg gagtgctggg          360
gttgggcagg ttgggccccg acagcccana aggctttggt agtggcacgc acagtctctg          420
ggcccgggtc tgcattaaat agaagaggct tctttagtgc tcatctcgaa gctctgaagg          480
cagaaacttg tactgctgct gccggatctg ggccangttt cttccgngcc tcttccagct          540
tctcgttcct tccgaaagca tttcttnctg tgcttgcat gaatcntggg caatgcccgn           600
ccaacccatc ttctctttca ccaccactgg tctnatttct cctnngtcnt tcaaaaggct          660
tgcaagcctt ctgggctggc ctttcaccca ganttaattt naagnctcgc tttacttggg         720
tttgcca                                                                     727
```

        <210> 514
        <211> 877
        <212> DNA
        <213> Homo Sapiens

        <400> 514

```
cagcagccag cgctgtgtct ggtatcattg ctgacctcga caccaccatc atgttcgcca           60
ctgctggcac gctcaatcgt gagggtactg aaactttcgc tgaccaccgg gagggcatcc          120
tgaagactgc gaaggtgctg gtggaggaca ccaaggtcct ggtgcaaaac gcagctggga          180
gccaggagaa gttggcgcag gctgcccagt cctccgtggc gaccatcacc cgcctcgctg          240
atgtggtcaa gctgggtgca gccagcctgg gagctgagga ccctgagacc caggtggtac          300
taatcaacgc agtgaaagat gtagccaaag ccctgggaga cctcatcagt gcaacgaagg          360
ctgcagctgg caaagttgga gatgaccctg ctgtgtggca gctaaagaac tctgccaagg          420
tgatggtgac caatgtgaca tcattgctta agacagtaaa agccgtggaa gatgaggcca          480
ccaaaggcac tcgggccctg gaggcaacca cagaacacat acggcaggag ctggcggttt          540
tctgttcccc agagccacct gccaagacct ctaccccaga agacttcatc cgaatgacca          600
agggtatcac catggcaacc gccaagccgt tgctgctgca attcctgtcg ccaggaagat          660
gtcattgcca cagccaatct gagcccgccg tgctattgca gatatgcttc ggctttgcaa          720
ggaagcagct taccacccag aagtgggccc tgatgtgcgg nttcaancct gnactatggc          780
ccggagtgtg ccaatggcta cctgggaact ggttggacca ttgtacttgg tgacccttgc          840
```

aaaagcccag ccccagaact tgaagccagc agtttgc   877

```
        <210> 515
        <211> 685
        <212> DNA
        <213> Homo Sapiens

        <400> 515
gtaggtagaa tcattttat tggagcatga cctgtttggg gcttataact ctgcagcccc     60
tatgggtagc tgggggtggg ggaagatagt atcaaaaaac ggtgaagaga gctgatgagg    120
ctgtggggac tggctggaag ctgctggcag ggtggagtgg gctggggccc cggcagattc    180
agatcgaggt acagcagcgt taataatact cttggagcgt taatactctg gggaggggca    240
ggcacttggg gggccctagg gcatgaaggc acttggggtt ggggagggga caggggatgt    300
actgcgggac tgggcggggc caggccctgg ggtttggcag gcactttggg gagtgctggg    360
gttgggcagg ttgggccccg acagcccaaa aggctttggt agtggcacgc acagtctctg    420
ggccgggtct gcattaaata gaagaggctt ctttagtgct catctcgaaa ctcttgaagg    480
cagaaacttt gtactgctgc ttgccggatc tgggccagtt tcttccgcgc ctcttcagct    540
tntcgttcct ttccgaancc atttctttcc tgngcttgcc natgaatctt gggcaaatgc    600
ccgccaaccc atcttctctt ttcaccccac cacctggnct cattctcctg ctcttcaaaa    660
ngcttgcaac cctttcttgg ngctn                                          685


        <210> 516
        <211> 790
        <212> DNA
        <213> Homo Sapiens

        <400> 516
ggttaacata cgaagaaaga atggctcgtc gactgctagg tgctgacagt gcaactgtct     60
ttaatattca ggagccagaa gaggaaacag ctaatcagga atacaaagtc tccagctgtg    120
aacagagact catcagtgaa atagagtaca ggctagaaag gtctcctgtg gatgaatcag    180
gtgatgaagt tcagtatgga gatgtgcctg tggaaaatgg aatggcacca ttcttgaga    240
tgaagctgaa acattacaag atctttgagg gaatgccagt aactttcaca tgtagagtgg    300
ctggaaatcc aaagccaaag atctattggt ttaaagatgg gaagcagatc tctccaaaga    360
gtgatcacta caccattcaa agagatctcg atgggacctg ctccctccat accacagcct    420
ccaccctaga tgatgatggg aattatacaa ttatggctgc aaaccctcag ggccgcatca    480
gttgtactgg acggctaatg gtacaggctg tcaaccaaag aggtcgaagt ccccggtctc    540
cctcaggcca tcctcatgtc agaaggcctc gttctagatc aagggacagt ggagacgaaa    600
atgaaccaat tcaggagcga ttcttcagac ctcacttctt gcaggctcct ggagatctga    660
ctgttcaaga aggaaaactc tgcagaatgg actgcaaagt cagtgggtta ccaacccca    720
gatctaagct ggcaactaga tggaaagccc gtacgccctg acagtgctca caagaaagcc    780
tggtgcctga                                                          790


        <210> 517
        <211> 747
        <212> DNA
        <213> Homo Sapiens

        <400> 517
atagtcaaag gtatgtttct gcctttaca tantgtgaca aaggaatatg ttggtcaagg     60
caatggctgt ttcagtgttt cagctttaac aagaatgctg gattacaggt cctcactttc    120
taccaaggca gtattcagtg tcaggtgaga tgggttggcc tcaggttgga acgctgcttt    180
gatgtctagt ccctggtccg aaagtgctgc atagcgactg gctgagggcc gtactttttt    240
tggcttggtg ctctgtgact gctgatgcca ctgggtgtaa acgtccagcc tggcagtaca    300
ggacacaatc cctgcttcat tcttggctga cacagtatac cacccagcat cttctttgt     360
ggctccctga atgagcaggc agatgtagcc gtggttgtcc tggtgcatgc tcactcggtc    420
```

```
agtgctgtga gtgagtgatt catttttcttt cttccaaaat atctgaggtg gtggcactcc        480
caatacacga cattccagcc gcactgggta cccatcagca actcctgtgt tttggagctt        540
ctcaataaac acagggggtt tgtgtgcttc tttagcagca accacaagct ccaggctgaa        600
tgagttctgt cctgctcggt tggtagctat acatgtgtag atgccggcat cacgtgacgt        660
gactggctct atgatcagag agtgcacccc gttctttacg caccagcatc ttgggagccc        720
tgtcaaggcg taccggcttt ccatcta                                            747
```

```
        <210> 518
        <211> 926
        <212> DNA
        <213> Homo Sapiens


        <400> 518
agaaagcaga gccttctgaa gttgacatga attctcctaa atccaaaaag gcaaaaaaga        60
aagaggagcc atctcaaaat gacatttctc ctaaaaccaa aagtttgaga aagaaaaagg       120
agcccattga aaagaaagtg gtttcttcta aaaccaaaaa agtgacaaaa aatgaggagc       180
cttctgagga agaaatagat gctcctaagc ccaagaagat gaagaaagaa aaggaaatga       240
atggagaaac tagagagaaa agccccaaac tgaagaatgg atttcctcat cctgaaccgg       300
actgtaaccc cagtgaagct gccagtgaag aaagtaacag tgagatagag caggaaatac       360
ctgtggaaca aaaagaaggc gctttctcta attttcccat atctgaagaa actattaaac       420
ttctcaaagg ccgaggagtg accttcctat ttcctataca agcaaagaca ttccatcatg       480
tttacagcgg gaaggactta attgcacagg cacggacagg aactgggaag acattctcct       540
ttgccatccc tttgattgag aaacttcatg gggaactgca agacaggaag agaggccgtg       600
cccctcaggt actggttctt gcacctacaa gagagttggc aaatcaagta agcaaagact       660
tcagtgacat cacaaaaaaa gcttgtcagt gggcttggtt tttatggtgg aacttcctat       720
ggaggtcaat ttggaccgca tggangnaat gggaattgga taatcctggg ttggaacacc       780
angtcgtatc aaaggaccnc antacnggaa tgggcaaact aagatcttca cccaaacttt       840
aagccatgtt ggcccttggg atgaaagtgg ggncccagan tgtttgggaa atngggaatt       900
tgcttgatca aagtggggaa gaagaa                                           926
```

```
        <210> 519
        <211> 789
        <212> DNA
        <213> Homo Sapiens


        <400> 519
acatactctt gagcaatgct aatctgcgcc ccttactccc ttaagtcctt cttggtaaat        60
aatgttaatc ttccaatagg aagaagtgga gtacattacc atttaagcac catttatcca       120
gcctacttac aaataaagct atggagccac cttatacatg tgaaattcct taaaaccctg       180
gctttctatt aaaatgtact tttatatata ctatctatga agaattcact aaagcatgaa       240
tcaccttata atgagaagct aaaaatgtat caaaacgaac ataagtatag gtaatccaca       300
tcaaacatac tacatcttcc aagtctagag catacactgg tataaactgt attacaaccc       360
agattagttt gaaatcttgt ttcaaaacat tgctcagtat taagtctcag tagacaaata       420
ataggaccac atgagaaact gttcggcagg tggctgagga aaccttaact tccaaaggct       480
caaagtggtc ctccagagac tgttacactc ccttaggtat ttatttcagg gaaggacact       540
attaagggac actttttgagt ataaagacag gtgaactcac aaagtatagg cagatcatgc       600
ttgatttttat cttctaatct acaggataat acattagaat aaaaatgtaa tgaattcata       660
cacctttcaa aaaggaaaaa ctggatgaag taacnnntaa agntataaat ggataatgga       720
tccggatgaa aataaattt aaaatggaaa ccttggctgn gtctgaaaga agaccgggac       780
tttggcaag                                                              789
```

```
        <210> 520
        <211> 827
        <212> DNA
        <213> Homo Sapiens
```

```
      <400> 520
gtgatatagt gcttgtcatt ttaattgtaa catattacca aaaagcttta tatacatagc      60
tttatactat ttacattgca gtagaggaat ggcaatgcta acaggtgatc agtgcttcca     120
aactttttca atacctacac atgggagatc taaagagtac aatatattta agacttctaa     180
ggaattgttt tctcctcact aataaagcat gccctgacta aagagaagtc ctgtaggcac     240
agccttatct attcaatgac tggcacctcc caggggtact gacacacaaa gtgccttcac     300
tggaccttac agttctcact gcccttggac tccagtccag ctttgggct ggggacaagt      360
cggcctcgct tgaccctcag gccctctctg gggctgtcag tcggacttct ctcaggaaga     420
ttattgactg ggacggattt cgtggtgggt tctcggagga tggtgcctga atctactggg     480
ctccgctgag caactttgac cttttgtgat ctgctgccac cagctgttgg tttggaggac     540
tctgcaagat tttctttgcc gagactcagt ggggatagcg ctaacttctg tgcagccagg     600
cgggggctgg tccgagttgc catggttggt cttcgcagga tatatgggct aagtctttnc     660
tgtcgggatg tcagcaaacc ctttctttac aacttctgga agtccctctg gctcaaactt     720
agtaccttcg ngncttctgc anggtgaata ccactcatga ctgntttctt gctttttttta    780
gaaaagctct ctggggtaac aggtgtgggn ccttcaccat tcttccc                   827
```

```
      <210> 521
      <211> 710
      <212> DNA
      <213> Homo Sapiens
```

```
      <400> 521
gtgatatagt gcttgtcatt ttaattgtaa catattacca aaaagcttta tatacatagc      60
tttatactat ttacattgca gtagaggaat ggcaatgcta acaggtgatc agtgcttcca     120
aactttttca atacctacac atgggagatc taaagagtac aatatattta agacttctaa     180
ggaattgttt tctcctcact aataaagcat gccctgacta aagagaagtc ctgtaggcac     240
agccttatct attcaatgac tggcacctcc caggggtact gacacacaaa gtgccttcac     300
tggaccttac agttctcact gcccttggac tccagtccag ctttggggct ggggacaagt     360
cggcctcgct tgaccctcag gccctctctg gggctgtcag tcggacttct ctcaggaaga     420
ttattgactg ggacggattt cgtggtgggt tctcggagga tggtgcctga atctactggg     480
ctccgctgag caactttgac cttttgtgat ctgctgccac cagctgttgg tttggaggac     540
tctgcaagat tttctttgcc gagactcagt ggggatagcg ctaacttctg tgcagccagg     600
cgggggctgg tccgaagttg ccatgggttg ntcttccagg atatatgggc taagnctttc     660
ctgtcgggat gtcagcaaaa ccctttcttt acaacttctg gaaagcccct                710
```

```
      <210> 522
      <211> 638
      <212> DNA
      <213> Homo Sapiens
```

```
      <400> 522
atagngcttg tcattttaat tgtaacatat taccaaaaag ctttatatac atagctttat      60
actatttaca ttgcagtaga ggaatggcaa tgctaacagg tgatcagtgc ttccaaactt     120
tttcaatacc tacacatggg agatctaaag agtacaatat atttaagact tctaaggaat     180
tgttttctcc tcactaataa agcatgccct gactaaagag aagtcctgta ggcacagcct     240
tatctattca atgactggca cctccagggg tactgacac acaaagngcc ttcactggac      300
cttacagttc tcactgccct tggactccag tccagctttg gggctgggga caagtcggcc     360
tcgcttgacc ctnaggccct ctctggggct gtcagtcgga cttctntcag gaagattatt     420
gactgggacg gatttcgtgg tgggttctcg gaggatggtg cctgaatcta ctgggctccg     480
ctgagcaact ttgacctttt gngatctgct gccaccagct gttggtttgg aggactntgc     540
aagattttct ttgccgagac ttantggggg atagcgctaa cttctggngc agccangcgg     600
gggctggtcc naanttgcca tggntgntct tcncagga                            638
```

```
      <210> 523
      <211> 833
```

-269-

<212> DNA
<213> Homo Sapiens

<400> 523

```
cgacacttag accgagtgga ctccatcctg ctcacccaca ttggggatga caatttgcct          60
ggaataaaca gcatgttaca gcggaaaatt gcagagctcg aggaagaaca gtcccagggc         120
tccaccacaa atagtgactg gatgaaaaac ctcatctccc ctgacttagg agttgtattt         180
ctcaatgtac ctgaaaatct caaaaatcca gagccaaaca tcaagatgaa gagaagcata         240
gaagaagcct gcttcactct ccagtaccta aacaaattgt ccatgaaacc agaacctctg         300
tttagaagtg taggcaatac tattgatcct gtcattcttt ccaaaaaat gggagtaggt          360
aaacttgaga tgtatgtgct taatccagtc aagagcagca aggaaatgca gtattttatg         420
cagcagtgga ctggtaccaa caaagacaag gctgaattca ttctgcctaa tggtcaagaa         480
gtagatctcc cgatttccta cttaacttca gtctcatctt tgattgtgtg gcatccagca         540
aaccctgcgg agaaaatcat ccgagtcctg tttcctggga acagcacccca gtacaacatc        600
ctggaagggt tggaaaagct caaacatcta gactttctga agcagccact ggccacccaa         660
aaggatctca ctggccaggt gcccactcct gtggtgaaac aaacaaaact gaacagaggg         720
cttgatagcc gagaaagtct gaagcccagc cgcaaaanca ctttctagca aaatccggcg         780
ccaaggagtc aaaagaagaa acccctgagg tcacaaaagg tggaatcacg tgg              833
```

<210> 524
<211> 766
<212> DNA
<213> Homo Sapiens

<400> 524

```
cacttccttc ttctcttcct tcttaacttc cttcttgact tcctttggcg gtgtttctttt        60
cttaacctct ttcttgggtt ctttttttctc ttctttcttg atctcttttt tgacttctttt      120
tttcacctct tccttttttg gtttttcctc cttcttgata ggtgttttgt cctcctttttt       180
agccacttct ttctttggct tttcttttctc ctctttcttg tcttcaggct ttacctttgt       240
ttccttttttc accgtcttct ccttggcagc tttgggtttg acatctgtgg cttgcttctc      300
agccacctcg gctttcactg gagatggctc ttctttgctg ggaacctcct tttcagtcac        360
tgaaggtttg gtctctgttt ttattggctt gtctttttttc accattacct tttctttgct       420
ttcaactttg ggtggctttt ccacgtgatt cacttttgtg acctcagggg tttcttctttt       480
tgactccttg cgcacggatt tgctaggaag tggtttttgcg gctggcttca gactttctcg        540
gctatcagcc ctctgtttca gtttttgtttg tttcaccaca ggagtgggca cctggccagt       600
gagancctttt tgggtggcca gtggctggtt cagaaagtct aaanggtttg aggcttttnc        660
aacctttcag gaatggtgga ccggggtgct ggtcccagga acaggactc ggatggatttt        720
ttctccccaa gggtttgctg gaagccccca caaatcaaag gaagga                      766
```

<210> 525
<211> 847
<212> DNA
<213> Homo Sapiens

<400> 525

```
cagcagccgg caggatggcg accgtggtgg tggaagccac cgagccggag ccgtccggca        60
gcatcgccaa cccggcggcg tccacctcgc ctagcctgtc gcaccgcttc cttgacagca        120
agttctactt gctggtggtc gtcggcgaga tcgtgaccga ggagcacctg cggcgtgcca        180
tcggcaacat cgagctcgga atccgatcat gggacacaaa cctgattgaa tgcaacttgg        240
accaagaact caaactttttt gtatctcgac actctgcaag attctctcct gaagtcccag       300
gacaaaagat ccttcatcac cgaagtgacg tttttagaaac agtggtcctg atcaacccctt      360
ctgatgaagc agtcagcacc gaggtgcgct aatgatcac tgatgctgcc cgacacaagc        420
tgctcgtgct gaccgggcag tgctttgaaa ataccggaga gctcattctc cagtccggct        480
ctttctcctt ccagaacttc atagagattt tcaccgatca agagatcggg gagttactaa        540
gcaccaccca tcctgccaac aaagccagct taaccctgtt ctgtcctgaa gaaggggact       600
```

```
ggaagaactc caatcttgac agacacaatc tccaagactt catcaatatt aaactcaatt          660
cagcttctat cttgccagaa atggaaggac tttctgagtt taccgagtat ctctcagaat          720
caagtggaag tcccatctcc ttttgacatc ttgggaacct tccacatcgg gtggatttct          780
gaagcttttc caagccctgt ggtataattt ttccaggang gaagggccaa ttttgccttg          840
gttgcaa                                                                    847
```

        <210> 526
        <211> 746
        <212> DNA
        <213> Homo Sapiens

        <400> 526

```
cttgatctct tttttgactt cttttttcac ctcttccttt tttggttttt cctccttctt          60
gataggtgtt ttgtcctcct ttttagccac ttctttcttt ggcttttctt tctcctcttt          120
cttgtcttca ggctttacct ttgtttcctt tttcaccgtc ttctccttgg cagctttggg          180
tttgacatct gtggcttgct tctcagccac ctcggctttc actggagatg gctcttcttt          240
gctgggaacc tccttttcag tcactgaagg tttggtctct gttttattgg cttgtctttt          300
ttcaccatta ccttttcttt gctttcaact ttgggtggct tttccacgtg attcactttt          360
gtgacctcag gggtttcttc ttttgactcc ttgcgcacgg atttgctagg aagtggtttt          420
gcggctggct tcagactttc tcggctatca gccctctgtt tcagtttttgt ttgtttcacc          480
acaggagtgg gcacctggcc agtgagatcc tttttgggtgg ccagtggctg cttcagaaag          540
tctagatgtt tgagcttttc caacccttcc aggatgttgt actgggtgct gttcccagga          600
aacaggactc ggatgatttt ctcccgcagg gtttgctgga agccacacaa tcaaagatga          660
gaactgaaag taaagtangg aaatcgggaa gaactacttc ttggaccatt taggcagaaa          720
ggaattcagc ccttggcttt ggtggg                                               746
```

        <210> 527
        <211> 837
        <212> DNA
        <213> Homo Sapiens

        <400> 527

```
cacttccttc ttctcttcct tcttaacttc cttcttgact tcctttggcg gtgtttctttt         60
cttaacctct ttcttgggtt ctttttttctc ttctttcttg atctcttttt tgacttctttt        120
tttcacctct tcctttttttg gttttttcctc cttcttgata ggtgttttgt cctcctttttt       180
agccacttct ttctttggct tttctttctc ctctttcttg tcttcaggct ttacctttgt          240
ttcctttttc accgtcttct ccttggcagc tttgggtttg acatctgtgg cttgcttctc          300
agccacctcg gctttcactg agatggctc ttctttgctg ggaacctcct tttcagtcac          360
tgaaggtttg gtctctgttt ttattggctt gtctttttttc accattacct tttctttgct         420
ttcaactttg ggtggctttt ccacgtgatt cactttttgtg acctcagggg tttcttcttt         480
tgactccttg cgcacggatt tgctaggaag tggttttgcg gctggcttca gactttctcg          540
gctatcagcc ctctgtttca gttttgttt gnttcaccac aggagtgggc acctggccag          600
tgagaccttt tgggtggcca agtggctgct tcagaaaagt ctagaaggtt tgagcctttt          660
ccaacccttc caggaaggtt gggacctggg tgctggttcc canggaaacc aggacctcgg          720
gatgaatttt ctcccgcaag ggtttgcctg gaatgccccn acaatccaaa gaatgaaanc          780
tgaaagttta antagggaaa atccgggaga aactaccttc ntggaccatt naggccc            837
```

        <210> 528
        <211> 822
        <212> DNA
        <213> Homo Sapiens

        <400> 528

```
ctcgggacgt gaaattgaca gtgaaaagta tggcagatga gcaagaaatc atgtgcaaat          60
tggaaagcat taaagagatc aggaacaaga ccctgcagat ggagaagatc aaggctcgtt          120
```

```
tgaaggctga gtttgaggca cttgagtcag aggaaaggca cctgaaggaa tacaagcagg    180
agatggacct tctgctacag gagaagatgg cccatgtgga ggaactccga ctgatccacg    240
ctgacatcaa tgtgatggaa aacactatca aacaatctga gaatgaccta aacaagctgc    300
tagagtctac aaggaggctg catgatgagt ataagccact gaaagaacat gtggatgccc    360
tgcgcatgac tctgggcctg cagaggctcc ctgacttgtg tgaagaagag gagaagcttt    420
ccttggatta ctttgagaag cagaaagcag aatggcagac agaacctcag gagcccccca    480
tccctgagtc cctggccgct gcagcccgct gccgcccaac agctccaagt ggctaggaag    540
caggatactc ggcagacggc caccttcagg cagcagcccc cacctatgaa ggcctgcttg    600
tcatgtcacc agcaaattca ccggaatgca cctatatgcc ctctttgcaa ggccaagagt    660
cggtcccgga accccaaaaa gccgaacgga agcaggatga ataaaggaaa gggagagccc    720
atgaagcttt gctaattata accccttcac cttgaccaga gtcattgatg tcctgatgtg    780
aaacaaccct tgcccaacc ccacgaagtc tcctatttaa tg                        822
```

```
          <210> 529
          <211> 842
          <212> DNA
          <213> Homo Sapiens

          <400> 529
actttcaaag agcagaggaa cattttatat agtgaacaca tacacacttg gcaatgtaaa    60
actacttaag gaaggaaaaa tatccccctc cccagccagg tactgagacc tggggctaaa   120
attttttgtc agtcagcccc catccccatc ccttatcttc gagtgacctt accaggaaac   180
ctggctttgg tggaaaggag agctgtgggg cttggggagc ctgatgcctt ttcttttggg   240
aggaaaggca cctgcacaat ccacaggaca ggagtggcca gcagctatcc tgagctgagg   300
ctccagaaga gttcagatcc aagagagcaa gggatgaatg gaaggaaagt cccacccacc   360
ttcatgtgta aagtgattgg catttactca aatctaaatc tactcctctc ctccctgcaa   420
tataccattg agcatgtgcc agagtaatgg ttctgaacaa aagccaacac agatgtcagc   480
ctgggggcac tctcagccaa ggaagcccct acagccgagc cctcagccct aatgacttag   540
gcagtaggtt aggcaggaga tgtagaagtt ggtctggctc actgatttca ctgtggaaat   600
cttctactag aatttgcaaa gactagatat tggggaaagg ttcattgatc ttaagaatcc   660
caagacacac agcctagtac ctaagaattt taagtatatg tggggagaca gaagtgggag   720
aaagctaaag aattaccggc catgccttcc aaatgattat gaaaanggag ggcttggtcc   780
aagcttacct ttgggccttt aaggatgaan atgangggta ggaagtangg gggatacatg   840
cc                                                                   842
```

```
          <210> 530
          <211> 815
          <212> DNA
          <213> Homo Sapiens

          <400> 530
ggaaaaggga gaaagatagg gagaaatatt cccaaagaga acaagaaaga gatagacaac    60
aaaatgatca gaaccgaccc agtgagaaag gagagaagga agagaaaagc aaagcaaagg   120
aagagcatat gaaagtaagg aaggaaagat atgaaaataa tgataaatac agagatagag   180
aaaaacgaga ggtaggtgtt cagtcttcag aaaagaaatca agacagaaag gaaagcagcc   240
caaattctag ggcaaaggat aaatttcttg accaagaaag atccaacaaa atgagaaaca   300
tggcaaagga caaagaaaga aaccaagaga aaccctctaa ttctgaatca tcactgggag   360
caaaacacag actcacagag gaagggcaag agaagggtaa agaacaagag agaccacctg   420
aggcagtgag caagtttgca aagcggaaca atgaagaaac tgtaatgtca gctagagaca   480
ggtacttggc caggcagatg gcgcgggtta atgcaaagac ctatattgag aaagaagatg   540
attgatggct accccaagag aaagatttaa ggaagcacag aaaactgtaa ttcctggaac   600
ctgctgcgta aaaccataaa ggagtgtgtt acccagtagt ttggagggca tttttaaatt   660
tattttcaaa attttaagtt aaaagtcagt cttaagcttg gatgttttgg aatgtggatg   720
tttggctgaa tttatatata gggngtactc atcaataccn cattctttgt gganttcaag   780
aacccgttaa gagtgtgctt aattccctga ngtac                               815
```

```
        <210> 531
        <211> 857
        <212> DNA
        <213> Homo Sapiens

        <400> 531
aaaatgtata agcatatcat tttattttca tttaagccaa ctatgctgta agctatttag      60
acaagatgat tcacatttta tacttaaata caaatttcag aacataaagt atattttctg     120
tttttcaaat ccatatttta tctgaaatac atttcctgca acaaaacatt attagaagag     180
ttaaattatt tatttaaaaa aaatttttta gagacagggt ctcattctgt tgcccaggtt     240
ggagtgcagt ggcatgatca tacctcactg taacatcaaa ttcctaggct caagtgatct     300
tcttgcctca gcctcttgaa cagctgggac tacaggcatg gactaccatg ctaggctttt     360
tgtttttttaa atagagacaa ggtcttatta tcctgcctag gctggtcttg aatgcctagc     420
ctcaatatcc ttctgccttg gcctcccaaa atgttggtat tacaggcacg agctaccgta     480
tctggccaaa attatttttt aatggttgta gtggagcaaa ttttcctcat tatgtaccta     540
cagggaatta gcacactctt aacggttctt gaatcaacaa agaatgtggt attgatgagt     600
acacactata tataaattca gccaaacatc cacatccaaa catccaagct gtaagactga     660
ctttttaactt aaaattttga aaataaattt aaaaagccct tcaaactact ggtaacacac     720
ttcnttatgg tttaccccac aggntncagg aattccagtt tctgggcttn ccttaaacct     780
ttccttgggg tagcccatca atcatctctt tctcaaaaaa aggcntttgc attaacccgg     840
gccatttggc ctggcca                                                   857

        <210> 532
        <211> 736
        <212> DNA
        <213> Homo Sapiens

        <400> 532
cctggatgct gtgctgattg aggatgagct ggaggaactc caccgctact gccaggaggt      60
gtttggaagg gtctcccggt tccaccggcg gctcacctcc tgcactccgg gcttggaaga     120
tgaaaaggag gcctctgaga atgaaacaga catggaagac cccagagaaa tccagactga     180
ttcttggcgt aaacggggag agagcgagga accgtcatct cctcagtccc tgtgtcatct     240
agtggcccca gggcacgagc ggtctggctg cgagacccct gtcagcgtgg actccatccc     300
cctggagtgg gaccacacag gcgacgtggg gggctcctcc tctcacgaag aggacgagga     360
gggcccatac tacagcgcac tgtcagatgt agaaatccct gaaaatcctg aggcatatct     420
taaaatgacc acaaaaactt tgaaagcgtc ttctggtaaa tccatttcgg atggccactc     480
gtggcatgtt cccgacagcc cttcctgtcc cgagcatcac tacaagcaaa tggaaggtga     540
caggaatgtt ccacctgttc cccctgcgtc cagcacccct tataaaccac cctatggaaa     600
gctactatta cctccaggca cggatggtgg caaagaaagc ccgcgagtcc tgaatggcaa     660
cccacagcag gaagacnggg gactggcccg gtattacaga gcaacagtca gggtgccttc     720
gacagatggg agatga                                                    736

        <210> 533
        <211> 678
        <212> DNA
        <213> Homo Sapiens

        <400> 533
ctggctaatt ttgtttttta atganaaaca tntgagttgt ncatatcaca aacagnttca      60
agtttntgnn ccaacccccc gccccaccc ccgccgnggc caaacagtta aaacccaaag     120
caaagcatca ntttggatgt gaaaaagtnt taaaaaatta acttacaaaa ncatccctat     180
caagtcggta gttnggcatt tactttacat tagtcaaaag ctccagctaa aatctaattt     240
ttttaaaaaa aaatcgaagt ttacattatt catacanatt gggcattgtt aaaaaatatg     300
cncaaataac cacatccatg caatacaatt tntttaaaaa tttaaagcan tntaaaagag     360
cagagctagg tnctgaacan aacattttgg ngtataaccg gcagntcaaa attgccagct     420
```

```
gattggagta aaactgattn taagcgtatt aaatatgatn gatngtttcc atcagctaag          480
ggngcctatg agtttctgaa ccatttntag ggnggaatgt cctcgcttgc ttcnataata          540
tatgtgatgg acaccactgc tcattgncca tacctacatt ataataatgc tgttttacaa          600
acaaaccaga attcacaaag ngcttggctn ttcaggaaac tgacatttcc agagatccct          660
aaactaaatc aactagtt                                                        678
```

```
        <210> 534
        <211> 789
        <212> DNA
        <213> Homo Sapiens


        <400> 534
ggtggatgag ggtgctgggg acagtgctgc ggtggccagt ggtggtgccc agaccttggc           60
ccttgccggg tcccctgccc catcggggca ccccaaggct ggacacagtg agaacggggt          120
tgaggaggac acagaaggtc gaacgggggcc caaagaaggt acccctggga gcccatcgga         180
gaccccaggc cccagcccag caggacctgc aggggacgag ccagccgaga gcccatcgga          240
gaccccaggc ccccgcccag caggacctgc aggggacgag ccagccgaga gcccatcgga          300
gaccccaggc ccccgcccgg caggacctgc aggggacgag ccagccgaga gcccatcgga          360
gaccccaggc cccagcccgg caggacctac aagggatgag ccagccgaga gcccatcgga          420
gaccccaggc ccccgcccgg caggacctgc aggggacgag ccagccgaga gcccatcgga          480
gaccccaggc ccccgcccgg caggacctgc aggggacgag ccagccgaga gcccatcgga          540
gaccccaggc cccagcccgg caggacctac aagggatgag ccagccaagg cggggggaggc         600
agcagagttg caggacgcag aggtggagtc ttctgccaag ttctgggaag ccnttaagga          660
aaggagttgc ccgtcggcgt cttggtcctc tggtccttgt tgaagggctt gggncttccg          720
gacttnttgn ggcttccctt aaggtttggt ttgtgaccct gaccatggan ccacaatgct          780
gggcttctt                                                                  789
```

```
        <210> 535
        <211> 802
        <212> DNA
        <213> Homo Sapiens


        <400> 535
caaagtcaaa tgaatttatt cagaaaaggc cttgcttggt atcagactaa gaaaagcagc           60
cctgcccgcc gcccccact ccanaagggt caatttacaa agacaggggc gcaggggana          120
gctgggtggg gaagacacag ccaggccagg aggcttctgc aggccttggg cttccctgag          180
ggcctcgcgg cttctggtgg ctgctatagt ggccccacag gaggccagca ctgtgggtca          240
tgggtcacgg gtcacgaagc anagcctgag gggagccgc agcagctccg gaggccccag           300
cccctgcagc agggacagga ggaccaagac gccgacgggc actcctttcc ttaaggcttc          360
ccanacttgg cagaagactc cacctctgcg tcctgcaact ctgctgcctc ccccgccttg          420
gctggctcat cccttgtagg tcctgccggg ctggggcctg gggtctccga tgggctctcg          480
gctggctcgt cccctgcagg tcctgccggg cggggcctg gggtntccga tgggctctcg           540
gctggctcgt cccctgcagg tcctgccggg cggggcctg gggtctccga tgggctctcg           600
gctggctcaa tcccttgtag gtccttgccg ggctggggcc tgggggtctt ccgaatgggc          660
ttctcggctg gcttcgtccc ttgcaagtcc ttgccgggcc gggggcccctg ggggtcttcn         720
aatgggcttt ttgggttggg ttcggccccc tggaaggtcc ctggctgggc cggggggccc          780
tgggggtctt ccnaaagggg ct                                                   802
```

```
        <210> 536
        <211> 901
        <212> DNA
        <213> Homo Sapiens


        <400> 536
aaaagaatgg aaaagaaaat acagagagaa cgagaaatgg aaaaggggga gtttgatgat           60
```

```
aaagaagcat ttgtgacatc tgcatataag aaaaaactgc aagagagagc tgaagaagaa      120
gaaagagaaa agagggctgc tgcactggaa gcatgtttgg atgtaaccaa gcagaaagat      180
ctcagtggat tttataggca cctattaaat caagcagttg gtgaagagga agtacctaaa      240
tgcagctttc gtgaagccag atctggtata aaggaagaaa aatcaagggg cttctccaat      300
gaagtaagtt caaaaaacag aataccacaa gagaaatgca ttcttcaaac tgatgtgaaa      360
gtagaggaaa acccagatgc agacagtgac ttcgatgcta agagcagtgc ggatgatgaa      420
atagaagaaa ctagagtgaa ctgcagaagg gaaaaggtca tagagacccc tgagaatgac      480
ttcaagcacc acaggagtca aaaccactct cggtcaccta gtgaagaaag agggcacagt      540
accaggcacc acacgaaagg atcacgaacg tcgagaggac atgagaaaag ggaagatcag      600
caccaacaga agcaatccag agaccaaaga gaaccattac actgacccgt gantaccgga      660
aagaaaggga ttctcatagc acagagaggc cagtcattag agattcccat tggaagagcc      720
ttgaacagga agataaaccc anggccaagg gnccaaggag gaaagaagtg acngaagtnt      780
ggnaaaaggg agaaaggatt gggagaaata nttcccaagg aggaccagga aggagattgc      840
ccaccaaatn gatccgaaac cgacccaatg agaaaggaga gaaggaagag aaaagccaag      900
c                                                                      901
```

        <210> 537
        <211> 761
        <212> DNA
        <213> Homo Sapiens

        <400> 537

```
atgtataagc atatcatttt attttcattt aagccaacta tgctgtaagc tatttagaca       60
agatgattca cattttatac ttaaatacaa atttcagaac ataaagtata ttttctgttt      120
ttcaaatcca tattttatct gaaatacatt tcctgcaaca aaacattatt agaagagtta      180
aattatttat ttaaaaaaaa tttttttagag acagggtctc attctgttgc ccaggttgga      240
gtgcagtggc atgatcatac ctcactgtaa catcaaattc ctaggctcaa gtgatcttct      300
tgcctcagcc tnttgaacag ctgggactac aggcatggac taccatgcta ggcttttgt       360
tttttaaata gagacaaggt cttattatcc tgcctaggct ggtcttgaat gcctagcctc      420
aatatccttc tgccttggcc tcccaaaatg ttggtattac aggcacgagc taccggatct      480
ggccaaaatt attttttaat ggttgtagtg gagcaaattt cctcattat gtacctacag       540
ggaattaagc cactcttaac ggttcttgaa tcnncaaaga atgtggnatt gatgagttcn      600
cactatatat aaattcagcc caaacatcca cattcnaaca tnccagctgt aagactgact      660
tttaacttaa aattttgaaa natnaaattt aaaaatgccc tncaaaacta ctgggaacac      720
cctcccttta tgggtttanc ccagcagggt tccaaggaat t                         761
```

        <210> 538
        <211> 869
        <212> DNA
        <213> Homo Sapiens

        <400> 538

```
cgggaacaag atggcagccc ccatacctca agggttctct tgtttatcga ggtttttggg       60
ctggtggttt cggcagccag ttctggtgac tcagtccgca gctatagttc cagtaagaac      120
taaaaaacgt ttcacacctc ctatttatca acctaaattt aaaacagaaa aggagtttat      180
gcaacatgcc cggaaagcag gattggttat tcctccagaa aaatcggacc gttccataca      240
tctggcctgt acagctggta tatttgatgc ctatgttcct cctgagggtg atgcacgcat      300
atcatctctt tcaaaggagg gactgataga gagaactgaa cgaatgaaga agactatggc      360
atcacaagtg tcaatccgga ggataaaaga ctatgatgcc aactttaaaa taaaggactt      420
ccctgaaaaa gctaaggata tctttattga agctcacctt tgtctaaata actcagacca      480
tgaccgactt cataccttgg taactgaaca ctgttttcca gacatgactt gggacatcaa      540
atataagacc gtccgctgga gctttgtgga atctttagag ccctctcatg ttgttcaagt      600
tcgctgttca agtatgatga accagggcaa cgtgtaccgn ccagatcacc gtaccgcatg      660
cacacccggc agactctggc catctatgac cgggtttggc ccggttgatg tatgggccag      720
gnagatgtcc ccaggatgtc ctggaagtat gttggantcg aaaagcagnt tgccaaancc      780
```

```
ctatggaagc tggagaagcn tacccaagac ggtncccct  gggcacccc  ttaagcaggc      840
catcctttaa aacggggatg atcccttgg                                        869
```

```
       <210> 539
       <211> 760
       <212> DNA
       <213> Homo Sapiens


       <400> 539
aagggataaa ttatttctt  ggatttatat ttttccataa aatgcaaatg ctgattcatc      60
agtgagtcag tatatgaaaa agggcctctt aaatgtctta taaacactaa ttattcttcc     120
ccagtcttca tttccttaaa gtcacatcgc tcacaagtag gctcatcttc cacttctgcc     180
atctgaaggc tggtccatgc ccagcctgaa ccaggggaaa tgtgcagaac tcaccaaaat     240
ttttccaaca ccctgacaac atttcatttc aaactctgat ccctgccctg tgattacaaa     300
gaggatgctg ctggttgtct ctcacagtcc ctgctgtggg aaaaactgat atccaatgtt     360
ctctgaaaca tactgtcttt catctagact cagaagctag acataaaatt taaaaaagaa     420
gagtgtccat ggccatgtta tacctgccac ctgctagggc ccagtcatca gtcatggttg     480
ctgatgatga gactgctgaa aagacctgag caggatggga gagaacaaag gtagttcttt     540
ttatagcatg aggggaatgg gagacttcaa agcttncagg cagcctcatc accccaggct     600
tcaccctaga aagtcatttt tgncatcagg gctaacctga ngcttctggg gcctctcctt     660
gggcctcttc ataatcttct tctgggnttc agcttgaagg gccaggggat tcatnacccg     720
gctttaaagg gatggggcct gcttaagggg ggtgccccat                           760
```

```
       <210> 540
       <211> 874
       <212> DNA
       <213> Homo Sapiens


       <400> 540
ggagcactgc ctcaaacatg ggctgaaagt taagaagagt tttattggcc aaaataaatc      60
attctttggt cctttggagc tggtggagaa actttgtcca gaagcatcag atatagcgac     120
tagtgtcaga aatcttccag aattaaagac agctgtggga agaggccgag cgtggcttta     180
tcttgcactc atgcaaaaga aactggcaga ttatctgaaa gtgcttatag acaataaaca     240
tctcttaagc gagttctatg agcctgaggc tttaatgatg gaggaagaag ggatggtgat     300
tgttggtctg ctggtgggac tcaatgttct cgatgccaat ctctgcttga aggagaaga     360
cttggattct caggttggag taatagattt ttccctctac cttaaggatg tgcaggatct     420
tgatggtggc aaggagcatg aaagaattac tgatgtcctt gatcaaaaaa attatgtgga     480
agaacttaac cggcacttga gctgcacagt tggggatctt caaaccaaga tagatggctt     540
ggaaaagact aactcaaagc ttcaagaaga gctttcagct gcaacagacc gaatttgctc     600
acttcaagaa gaacagcagc agttaaagag aacnaaatga attaattcga gaaagaagtn     660
aaaagagtgt agaagatacn aaacaggatc caaagttgag ctggagactt acagccaact     720
tcgcaaggtc tggatgaaat gtcnntgatg tgtggaagca cttaaagagg agaagaaagt     780
ccggttggaa ctggaaaaaa gaactggagn tccaaatggg aatgaaaacc caaatnggaa     840
atgccatgaa gttcctggna aaggcccccc ccaa                                 874
```

```
       <210> 541
       <211> 729
       <212> DNA
       <213> Homo Sapiens


       <400> 541
gaaaaataaa tgatttttatt gcagggccaa tgataggtag tcacaagggc atgaaatggc     60
agatctcttg tctgaagcag agaaggcaca ctggcagact ccatgtgtgt caaacgctgt    120
gcatgaatca ggtttttaga aggaaggtag gagaggaaaa ctactcacta gcagaactga    180
actgctgtaa aataggttaa attctttgaa aagtgaaaaa tgatagtagc aaaatcatga    240
```

```
agttgtatct gaaccagagc cgtgatgtaa ccaagtaaga tggaagtttc catccagagg        300
agttaattcc gaacaagtca cagaaaggtg agagctgccg gttccggcac gctgtcttct        360
ggagtgccag tgaccgggca agaaatttga ttctttcctt tgattctctt gggaaagaac        420
acatttccca agccctgga gacccacagg gtttggcact gtccgtgagg ctgtgctcct         480
gaggacggac gttcaggagg ccgtggagga gcagcgctgc aggagcaggg tgtggcagct        540
gtcgcacact cgcaccggct tggggtagga gggcagggcc cagctcgttg ctgggagcag        600
gtgtttgcan aagatgtggc ccacagttcc ggcagtnggt gctttctccg gggaaaatgg        660
agaacttcct ttntcacacn tggctaccag tggggtcgnt ttcggcatct tttcaagcca        720
ggccgtggg                                                               729
```

    <210> 542
    <211> 830
    <212> DNA
    <213> Homo Sapiens

    <400> 542

```
gggacagcgg ggacggcacg gcgcgcgcag cttctaagtg ccagatgatg gaggagcgtg         60
ccaacctgat gcacatgatg aaactcagca tcaaggtgtt gctccagtcg gctctgagcc        120
tgggccgcag cctggatgcg gaccatgccc ccttgcagca gttctttgta gtgatggagc        180
actgcctcaa acatgggctg aaagttaaga agagttttat tggccaaaat aaatcattct        240
ttggtccttt ggagctggtg gagaaacttt gtccagaagc atcagatata gcgactagtg        300
tcagaaatct tccagaatta aagacagctg tgggaagagg ccgagcgtgg ctttatcttg        360
cactcatgca aaagaaactg gcagattatc tgaaagtgct tatagacaat aaacatctct        420
taagcgagtt ctatgagcct gaggctttaa tgatggagga agaagggatg gtgattgttg        480
gtctgctggt gggactcaat gttctcgatg ccaatctctg cttgaaagga gaagacttgg        540
attctcaggt tggagtaata gatttttccc tctaccttaa ggatgtgcag gatcttgatg        600
gtggcaagga gcatgaaaga attactgatg tccttgatca aaaaaattat gtggaagaac        660
ttaacccggc acttgagctg caccagttgg ggatctttca acccaagata gatggctttg        720
gaaaagacta actcaaagct tcagaagagc nttnagctgc accagaccga attttgctcc        780
tttcaagaaa nacagcaccn gttaagaaaa ccaaatggaa ttaatttcag                   830
```

    <210> 543
    <211> 733
    <212> DNA
    <213> Homo Sapiens

    <400> 543

```
gaaaaataaa tgattttatt gcagggccaa tgataggtag tcacaagggc atgaaatggc         60
agatctcttg tctgaagcag agaaggcaca ctggcagact ccatgtgtgt caaacgctgt        120
gcatgaatca ggttttttaga aggaaggtag gagaggaaaa ctactcacta gcagaactga      180
actgctgtaa aataggttaa attctttgaa aagtgaaaaa tgatagtagc aaaatcatga       240
agttgtatct gaaccagagc cgtgatgtaa ccaagtaaga tggaagtttc catccagagg        300
agttaattcc gaacaagtca cagaaaggtg anagctgccg gttccggcac gctgtcttct        360
ggagtgccag tgaccgggca agaaatttga ttctttcctt tgattctctt gggaaagaac        420
acatttccca agccctgga gacccacagg gtttggcact gtccgtgagg ctgtgctcct         480
gaggacggac gttcaggagg cccgtggagg agcagcgctg caggagcagg gtgtggcagc        540
tgtcgcacac tcgcaccggc ttggggtagg anggcagggc tagctcgttg ctggancang         600
tgttgcaaaa naatgtggcc acagntncgg cagtgggtgc tttntccggg aaaagggaga        660
acttccttnt cacacttggc tacagnggng gncgctttcg ncatcttttt ancccaggcg        720
nnggcccttt caa                                                          733
```

    <210> 544
    <211> 852
    <212> DNA
    <213> Homo Sapiens

```
        <400> 544
gtggagaaat gcgctatcag ctgaataaaa ccaacatgga gaaggatgag gcagaaaagg      60
agcacagaga gttcagagca aaaactaaca gggatcttga aattaaagat caggaaatag     120
agaaattgag aatagaactg gatgaaagca aacaacactt ggaacaggag cagcagaagg     180
cagccctggc cagagaggag tgcctgagac taacagaact gctgggcgaa tctgagcacc     240
aactgcacct caccagatct gaaatagctc aactcagtca agaaaaaagg tatacatatg     300
ataaattggg aaagttacag agaagaaatg aagaattgga ggaacagtgt gtccagcatg     360
ggagagtaca tgagacgatg aagcaaaggc taggcagct ggataagcac agccaggcca      420
cagccccagca gctggtgcag ctcctcagca agcagaacca gcttctcctg gagaggcaga     480
gcctgtcgga agaggtggac cggctgcgga cccagttacc cagcatgcca caatctgatt     540
gctgacctgg atggaacaga gtgaaataaa tgaattacaa agagatattt acattcatct     600
ggtttagact taatatgcca caacgcacca cgaccttccc agggtgacac cgcctcagcc     660
tgcagtgggg ctggtcctca tcaacgcggg cgctgtcccc gcacgcagtc gggctggagc     720
tggagtctga ctctagctga gcagactcct ggtgtatgtt ttcagaaatg gcttgaagtt     780
atgtgtttaa atctgctcat tcgtatgcta ggttatacat atgattttca ataaatgaac     840
tttttaaaga aa                                                         852
```

```
        <210> 545
        <211> 414
        <212> PRT
        <213> Homo Sapiens


        <400> 545
Leu Leu Asp Ala Ser Glu Lys Leu Lys Leu Thr Tyr Glu Glu Lys Cys
1               5                   10                  15
Glu Ile Glu Glu Ser Gln Leu Lys Phe Leu Arg Asn Asp Leu Ala Glu
            20                  25                  30
Tyr Gln Arg Thr Cys Glu Asp Leu Lys Glu Gln Leu Lys His Lys Glu
        35                  40                  45
Phe Leu Leu Ala Ala Asn Thr Cys Asn Arg Val Gly Gly Leu Cys Leu
    50                  55                  60
Lys Cys Ala Gln His Glu Ala Val Leu Ser Gln Thr His Thr Asn Val
65                  70                  75                  80
His Met Gln Thr Ile Glu Arg Leu Val Lys Glu Arg Asp Asp Leu Met
                85                  90                  95
Ser Ala Leu Val Ser Val Arg Ser Ser Leu Ala Asp Thr Gln Gln Arg
            100                 105                 110
Glu Ala Ser Ala Tyr Glu Gln Val Lys Gln Val Leu Gln Ile Ser Glu
        115                 120                 125
Glu Ala Asn Phe Glu Lys Thr Lys Ala Leu Ile Gln Cys Asp Gln Leu
    130                 135                 140
Arg Lys Glu Leu Glu Arg Gln Ala Glu Arg Leu Glu Lys Glu Leu Ala
145                 150                 155                 160
Ser Gln Gln Glu Lys Arg Ala Ile Glu Lys Asp Met Met Lys Lys Glu
                165                 170                 175
Ile Thr Lys Glu Arg Glu Tyr Met Gly Ser Lys Met Leu Ile Leu Ser
            180                 185                 190
Gln Asn Ile Ala Gln Leu Glu Ala Gln Val Glu Lys Val Thr Lys Glu
        195                 200                 205
Lys Ile Ser Ala Ile Asn Gln Leu Glu Glu Ile Gln Ser Gln Leu Ala
    210                 215                 220
Ser Arg Glu Met Asp Val Thr Lys Val Cys Gly Glu Met Arg Tyr Gln
225                 230                 235                 240
Leu Asn Lys Thr Asn Met Glu Lys Asp Glu Ala Glu Lys Glu His Arg
                245                 250                 255
```

```
Glu Phe Arg Ala Lys Thr Asn Arg Asp Leu Glu Ile Lys Asp Gln Glu
            260                 265                 270
Ile Glu Lys Leu Arg Ile Glu Leu Asp Glu Ser Lys Gln His Leu Glu
            275                 280                 285
Gln Glu Gln Gln Lys Ala Ala Leu Ala Arg Glu Glu Cys Leu Arg Leu
        290                 295                 300
Thr Glu Leu Leu Gly Glu Ser Glu His Gln Leu His Leu Thr Arg Ser
305                 310                 315                 320
Glu Ile Ala Gln Leu Ser Gln Glu Lys Arg Tyr Thr Tyr Asp Lys Leu
                325                 330                 335
Gly Lys Leu Gln Arg Arg Asn Glu Glu Leu Glu Glu Gln Cys Val Gln
            340                 345                 350
His Gly Arg Val His Glu Thr Met Lys Gln Arg Leu Arg Gln Leu Asp
        355                 360                 365
Lys His Ser Gln Ala Thr Ala Gln Gln Leu Val Gln Leu Leu Ser Lys
        370                 375                 380
Gln Asn Gln Leu Leu Leu Glu Arg Gln Ser Leu Ser Glu Glu Val Asp
385                 390                 395                 400
Arg Leu Arg Thr Gln Leu Pro Ser Met Pro Gln Ser Asp Cys
                405                 410
```

```
    <210> 546
    <211> 2885
    <212> DNA
    <213> Homo Sapiens

    <400> 546
ggaattcctc ttgtcgaagt caaaggagcc cacaccaggc ggcctcaacc attccctccc    60
acagcacccc aaatgctggg gagcccacca tgcttctttg gaccagagtt cccctcccca   120
gagcggcccc cctgggacgc ctccctccta caaactgcct ttgcctgggc cctacgacag   180
tcgagacgac ttccccctcc gcaaaacagc ctctgaaccc aacttgaaag tgcgttcaag   240
gctaaaacag aaggtggctg agcggagaag cagtcccctc ctgcgtcgca aggatgggac   300
tgttattagc acctttaaga agagagctgt tgagatcaca ggtgccgggc ctggggcgtc   360
gtccgtgtgt aacagcgcac ccggctccgg ccccagctct cccaacagct cccacagcac   420
catcgctgag aatggctttta ctggctcagt ccccaacatc cccactgaga tgctccctca   480
gcaccgagcc ctccctctgg acagctcccc caaccagttc agcctctaca cgtctccttc   540
tctgcccaac atctccctag ggctgcaggc cacggtcact gtcaccaact cacacctcac   600
tgcctccccg aagctgtcga cacagcagga ggccgagagg caggccctcc agtccctgcg   660
gcagggtggc acgctgaccg gcaagttcat gagcacatcc tctattcctg gctgcctgct   720
gggcgtggca ctggagggcg acgggagccc ccacgggcat gcctccctgc tgcagcatgt   780
gctgttgctg gagcaggccc ggcagcagag caccctcatt gctgtgccac tccacgggca   840
gtccccacta gtgacgggtg aacgtgtggc caccagcatg cggacggtag gcaagctccc   900
gcggcatcgg cccctgagcc gcactcagtc ctcaccgctg ccgcagagtc cccaggccct   960
gcagcagctg gtcatgcaac aacagcacca gcagttcctg gagaagcaga agcagcagca  1020
gctacagctg ggcaagatcc tcaccaagac aggggagctg cccaggcagc ccaccaccca  1080
ccctgaggag acagaggagg agctgacgga gcagcaggag gtcttgctgg gggagggagc  1140
cctgaccatg ccccggggagg gctccacaga gagtgagagc acacaggaag acctggagga  1200
ggaggacgag gaagaggatg gggaggagga ggaggattgc atccaggtta aggacgagga  1260
gggcgagagt ggtgctgagg aggggcccga cttggaggag cctggtgctg gatacaaaaa  1320
actgttctca gatgcccaac cgctgcaacc tttgcaggtg taccaagcgc ccctcagcct  1380
ggccactgtg ccccaccaag ccctgggccg tacccaatcc tccctgctg ccccctggggg  1440
catgaagaac cccccagacc aacccgtcaa gcacctcttc accacaagtg tggtctacga  1500
cacgttcatg ctaaagcacc agtgcatgtg cgggaacaca cacgtgcacc ctgagcatgc  1560
tggccggatc cagagcatct ggtcccggct gcaggagaca ggcctgctta gcaagtgcga  1620
gcggatccga ggtcgcaaag ccacgctaga tgagatccag acagtgcact ctgaatacca  1680
```

```
caccctgctc tatgggacca gtcccctcaa ccggcagaag ctagacagca agaagttgct     1740
cggtcccatc agccagaaga tgtatgctgt gctgccttgt gggggcatcg gggtggacag     1800
tgacaccgtg tggaatgaga tgcactcctc cagtgctgtg cgcatggcag tgggctgcct     1860
gctggagctg gccttcaagg tggctgcagg agagctcaag aatggatttg ccatcatccg     1920
gcccccagga caccacgccg aggaatccac agccatggga ttctgcttct tcaactctgt     1980
agccatcacc gcaaaactcc tacagcagaa gttgaacgtg ggcaaggtcc tcatcgtgga     2040
ctgggacatt caccatggca atggcaccca gcaggcgttc tacaatgacc cctctgtgct     2100
ctacatctct ctgcatcgct atgacaacgg gaacttcttt ccaggctctg gggctcctga     2160
agaggttggt ggaggaccag gcgtggggta caatgtgaac gtggcatgga caggaggtgt     2220
ggacccccc attggagacg tggagtacct tacagccttc aggacagtgg tgatgcccat     2280
tgcccacgag ttctcacctg atgtggtcct agtctccgcc gggtttgatg ctgttgaagg     2340
acatctgtct cctctgggtg gctactctgt caccgccaga tgttttggcc acttgaccag     2400
gcagctgatg accctggcag ggggccgggt ggtgctggcc ctggagggag gccatgactt     2460
gaccgccatc tgtgatgcct ctgaagcttg tgtctcggct ctgctcagtg taaagctgca     2520
gcccttggat gaggcagtct tgcagcaaaa gcccaacatc aacgcagtgg ccacgctaga     2580
gaaagtcatc gagatccaga gcaaacactg gagctgtgtg cagaagttcg ccgctggtct     2640
gggccggtcc ctgcgagggg cccaagcagg tgagaccgaa gaagccgaaa tgtgaacgcc     2700
atggccttgc tgttggtggg ggccgaacag gcccaagctg cggcagcccg ggaacacagc     2760
cccaggccgg cagaggagcc catggagcag gagcctgccc tgtgacgccc cggccccat      2820
cccttttgggc ttcaccattg tgattttgtt tattttttct attaaaaaca aaagttaaa     2880
aattt                                                                 2885
```

```
        <210> 547
        <211> 897
        <212> PRT
        <213> Homo Sapiens

        <400> 547
Glu Phe Leu Leu Ser Lys Ser Lys Glu Pro Thr Pro Gly Gly Leu Asn
1               5                   10                  15
His Ser Leu Pro Gln His Pro Lys Cys Trp Gly Ala His His Ala Ser
            20                  25                  30
Leu Asp Gln Ser Ser Pro Pro Gln Ser Gly Pro Pro Gly Thr Pro Pro
        35                  40                  45
Ser Tyr Lys Leu Pro Leu Pro Gly Pro Tyr Asp Ser Arg Asp Asp Phe
    50                  55                  60
Pro Leu Arg Lys Thr Ala Ser Glu Pro Asn Leu Lys Val Arg Ser Arg
65                  70                  75                  80
Leu Lys Gln Lys Val Ala Glu Arg Arg Ser Ser Pro Leu Leu Arg Arg
            85                  90                  95
Lys Asp Gly Thr Val Ile Ser Thr Phe Lys Lys Arg Ala Val Glu Ile
            100                 105                 110
Thr Gly Ala Gly Pro Gly Ala Ser Ser Val Cys Asn Ser Ala Pro Gly
        115                 120                 125
Ser Gly Pro Ser Ser Pro Asn Ser Ser His Ser Thr Ile Ala Glu Asn
    130                 135                 140
Gly Phe Thr Gly Ser Val Pro Asn Ile Pro Thr Glu Met Leu Pro Gln
145                 150                 155                 160
His Arg Ala Leu Pro Leu Asp Ser Ser Pro Asn Gln Phe Ser Leu Tyr
            165                 170                 175
Thr Ser Pro Ser Leu Pro Asn Ile Ser Leu Gly Leu Gln Ala Thr Val
            180                 185                 190
Thr Val Thr Asn Ser His Leu Thr Ala Ser Pro Lys Leu Ser Thr Gln
        195                 200                 205
Gln Glu Ala Glu Arg Gln Ala Leu Gln Ser Leu Arg Gln Gly Gly Thr
```

-280-

```
            210                      215                      220
Leu Thr Gly Lys Phe Met Ser Thr Ser Ser Ile Pro Gly Cys Leu Leu
225                      230                      235                      240
Gly Val Ala Leu Glu Gly Asp Gly Ser Pro His Gly His Ala Ser Leu
                245                      250                      255
Leu Gln His Val Leu Leu Leu Glu Gln Ala Arg Gln Gln Ser Thr Leu
                260                      265                      270
Ile Ala Val Pro Leu His Gly Gln Ser Pro Leu Val Thr Gly Glu Arg
                275                      280                      285
Val Ala Thr Ser Met Arg Thr Val Gly Lys Leu Pro Arg His Arg Pro
                290                      295                      300
Leu Ser Arg Thr Gln Ser Ser Pro Leu Pro Gln Ser Pro Gln Ala Leu
305                      310                      315                      320
Gln Gln Leu Val Met Gln Gln Gln His Gln Gln Phe Leu Glu Lys Gln
                325                      330                      335
Lys Gln Gln Gln Leu Gln Leu Gly Lys Ile Leu Thr Lys Thr Gly Glu
                340                      345                      350
Leu Pro Arg Gln Pro Thr Thr His Pro Glu Glu Thr Glu Glu Glu Leu
                355                      360                      365
Thr Glu Gln Gln Glu Val Leu Leu Gly Glu Gly Ala Leu Thr Met Pro
        370                      375                      380
Arg Glu Gly Ser Thr Glu Ser Glu Ser Thr Gln Glu Asp Leu Glu Glu
385                      390                      395                      400
Glu Asp Glu Glu Glu Asp Gly Glu Glu Glu Glu Asp Cys Ile Gln Val
                405                      410                      415
Lys Asp Glu Glu Gly Glu Ser Gly Ala Glu Glu Gly Pro Asp Leu Glu
                420                      425                      430
Glu Pro Gly Ala Gly Tyr Lys Lys Leu Phe Ser Asp Ala Gln Pro Leu
                435                      440                      445
Gln Pro Leu Gln Val Tyr Gln Ala Pro Leu Ser Leu Ala Thr Val Pro
        450                      455                      460
His Gln Ala Leu Gly Arg Thr Gln Ser Ser Pro Ala Ala Pro Gly Gly
465                      470                      475                      480
Met Lys Asn Pro Pro Asp Gln Pro Val Lys His Leu Phe Thr Thr Ser
                485                      490                      495
Val Val Tyr Asp Thr Phe Met Leu Lys His Gln Cys Met Cys Gly Asn
                500                      505                      510
Thr His Val His Pro Glu His Ala Gly Arg Ile Gln Ser Ile Trp Ser
        515                      520                      525
Arg Leu Gln Glu Thr Gly Leu Leu Ser Lys Cys Glu Arg Ile Arg Gly
        530                      535                      540
Arg Lys Ala Thr Leu Asp Glu Ile Gln Thr Val His Ser Glu Tyr His
545                      550                      555                      560
Thr Leu Leu Tyr Gly Thr Ser Pro Leu Asn Arg Gln Lys Leu Asp Ser
                565                      570                      575
Lys Lys Leu Leu Gly Pro Ile Ser Gln Lys Met Tyr Ala Val Leu Pro
                580                      585                      590
Cys Gly Gly Ile Gly Val Asp Ser Asp Thr Val Trp Asn Glu Met His
        595                      600                      605
Ser Ser Ser Ala Val Arg Met Ala Val Gly Cys Leu Leu Glu Leu Ala
        610                      615                      620
Phe Lys Val Ala Ala Gly Glu Leu Lys Asn Gly Phe Ala Ile Ile Arg
625                      630                      635                      640
Pro Pro Gly His His Ala Glu Glu Ser Thr Ala Met Gly Phe Cys Phe
                645                      650                      655
```

-281-

```
Phe Asn Ser Val Ala Ile Thr Ala Lys Leu Leu Gln Gln Lys Leu Asn
            660                 665                 670
Val Gly Lys Val Leu Ile Val Asp Trp Asp Ile His His Gly Asn Gly
        675                 680                 685
Thr Gln Gln Ala Phe Tyr Asn Asp Pro Ser Val Leu Tyr Ile Ser Leu
        690                 695                 700
His Arg Tyr Asp Asn Gly Asn Phe Phe Pro Gly Ser Gly Ala Pro Glu
705                 710                 715                 720
Glu Val Gly Gly Gly Pro Gly Val Gly Tyr Asn Val Asn Val Ala Trp
                725                 730                 735
Thr Gly Gly Val Asp Pro Pro Ile Gly Asp Val Glu Tyr Leu Thr Ala
            740                 745                 750
Phe Arg Thr Val Val Met Pro Ile Ala His Glu Phe Ser Pro Asp Val
        755                 760                 765
Val Leu Val Ser Ala Gly Phe Asp Ala Val Glu Gly His Leu Ser Pro
    770                 775                 780
Leu Gly Gly Tyr Ser Val Thr Ala Arg Cys Phe Gly His Leu Thr Arg
785                 790                 795                 800
Gln Leu Met Thr Leu Ala Gly Gly Arg Val Val Leu Ala Leu Glu Gly
            805                 810                 815
Gly His Asp Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Ser
            820                 825                 830
Ala Leu Leu Ser Val Lys Leu Gln Pro Leu Asp Glu Ala Val Leu Gln
        835                 840                 845
Gln Lys Pro Asn Ile Asn Ala Val Ala Thr Leu Glu Lys Val Ile Glu
    850                 855                 860
Ile Gln Ser Lys His Trp Ser Cys Val Gln Lys Phe Ala Ala Gly Leu
865                 870                 875                 880
Gly Arg Ser Leu Arg Gly Ala Gln Ala Gly Glu Thr Glu Glu Ala Glu
            885                 890                 895
Met
```

```
        <210> 548
        <211> 1298
        <212> DNA
        <213> Homo Sapiens

        <400> 548
ggctgctgaa atgactgcga accggcttgc agagagcctt ctggctttga gccancagga      60
agaactagcg gatttgccaa aagactacct cttgagtgag agtgaagatg aggggggacaa     120
tgatggagag agaaagcatc naaagcttct ggaagcaatc agttcccttg atggaaagaa     180
taggcggaaa ttggctgana ggtctgaggc tagtctgaag gtgtcagagt tcaatgtcag     240
ttctgaagga tcaggagaaa agctggtcct tgcagatctg cttgagcctg ttaaaacttc     300
atcttctttg gccactgtga aaaagcaact gagtagagtc anatcaaaga anacagtgga     360
gttacctctg aacaaagaag agattgaacg gatccacaga gaatagcatt caataaaacg     420
cacaagtcct ctccaaatgg gaccctgtcg tcctgaagaa ccggcaggca gagcagctgg     480
tttttcccct ggagaaagag gagccagcca ttgctcccat tgaacatgtg ctcagtggct     540
ggaaggcaag aactcccctg agcaggaaa ttttcaacct cctccataag aacaagcagc     600
cagtgacaga ccctttactg accctgtgg aaaaggcctc tctccgagcc atgagcctag     660
aagaggcaaa gatgcgacga gcagagcttc agagggctcg ggctctgcag tcctactatg     720
angccaaggc tcgaagagag aagaaaatcn aaagttaaaa gtatcacaaa gtcgtgaaga     780
aaggaaaggc caagaaagcc ctaaaagagt ttgagcagct gcggaaggtt aatccagctg     840
ccgcactaga agaacgaaga aaagaggaaa gaaggaggag gagaaagaag aagaacaagg     900
agaagaagaa agaagaaggg agaaggagaa gaaagaagg agaagaggaa aaggaagaag     960
```

```
gagaaagaaa aggagaagga aaaggaaaag aaggagaaga aagaagaact aagaagaagg   1020
agaggaagaa taagaaggaa agaagaaaga aaaaagtnaa agaagaagaa agaaggaaga   1080
aggaaagaag aggaagaact nagaagaaga aagaggagga aagaagaaag aagaataagg   1140
aacnagaaag aaggagaaga aagaataaga agaggaagaa gaaaaagaag aaaagaagaa   1200
ggaaagaagg agaaaaagga agaaaaaagg aagaagaaag tagaaagcgg aagaaagaaa   1260
agaaagtata agaaggaaga agaagaaaga aggaaaaaa                          1298
```

```
        <210> 549
        <211> 236
        <212> PRT
        <213> Homo Sapiens


        <400> 549
Ala Ala Glu Met Thr Ala Asn Arg Leu Ala Glu Ser Leu Leu Ala Leu
1               5                   10                  15
Ser Gln Glu Glu Leu Ala Asp Leu Pro Lys Asp Tyr Leu Leu Ser Glu
            20                  25                  30
Ser Glu Asp Glu Gly Asp Asn Asp Gly Glu Arg Lys His Lys Leu Leu
        35                  40                  45
Glu Ala Ile Ser Ser Leu Asp Gly Lys Asn Arg Arg Lys Leu Ala Arg
    50                  55                  60
Ser Glu Ala Ser Leu Lys Val Ser Glu Phe Asn Val Ser Ser Glu Gly
65                  70                  75                  80
Ser Gly Glu Lys Leu Val Leu Ala Asp Leu Leu Glu Pro Val Lys Thr
            85                  90                  95
Ser Ser Ser Leu Ala Thr Val Lys Lys Gln Leu Ser Arg Val Ser Lys
            100                 105                 110
Thr Val Glu Leu Pro Leu Asn Lys Glu Glu Ile Glu Arg Ile His Arg
        115                 120                 125
Glu Ile Ala Phe Asn Lys Thr His Lys Ser Ser Pro Asn Gly Thr Leu
    130                 135                 140
Ser Ser Val Leu Lys Asn Arg Gln Ala Glu Gln Leu Val Phe Pro Leu
145                 150                 155                 160
Glu Lys Glu Glu Pro Ala Ile Ala Pro Ile Glu His Val Leu Ser Gly
            165                 170                 175
Trp Lys Ala Arg Thr Pro Leu Glu Gln Glu Ile Phe Asn Leu Leu His
            180                 185                 190
Lys Asn Lys Gln Pro Val Thr Asp Pro Leu Leu Thr Pro Val Glu Lys
        195                 200                 205
Ala Ser Leu Arg Ala Met Ser Leu Glu Glu Ala Lys Met Arg Arg Ala
    210                 215                 220
Glu Leu Gln Arg Ala Arg Ala Leu Gln Ser Tyr Tyr
225                 230                 235
```

```
        <210> 550
        <211> 2236
        <212> DNA
        <213> Homo Sapiens


        <400> 550
cctggcccgg tcgcggtcgc ggctctttcc agctcctggc agccgggcac ccgaaggaac    60
gggtcgtgca acgacgcagc tggacctggc ccagccatgg accgaaaagt ggcccgagaa   120
ttccggcata aggtggattt tctgattgaa aatgatgcag agaaggacta tctctatgat   180
gtgctgcgaa tgtaccacca gaccatggac gtggccgtgc tcgtgggaga cctgaagctg   240
gtcatcaatg aacccagccg tctgcctctg tttgatgcca ttcggccgct gatcccactg   300
```

```
aagcaccagg tggaatatga tcagctgacc ccccggcgct ccaggaagct gaaggaggtg    360
cgtctggacc gtctgcaccc cgaaggcctc ggcctgagtg tgcgtggtgg cctggagttt    420
ggctgtgggc tcttcatctc ccacctcatc aaaggcggtc aggcagacag cgtcgggctc    480
caggtagggg acgagatcgt ccggatcaat ggatattcca tctcctcctg tacccatgag    540
gaggtcatca acctcattcg aaccaagaaa actgtgtcca tcaaagtgag acacatcggc    600
ctgatccccg tgaaaagctc tcctgatgag cccctcactt ggcagtatgt ggatcagttt    660
gtgtcggaat ctggggggcgt gcgaggcagc ctgggctccc ctggaaatcg ggaaaacaag    720
gagaagaagg tcttcatcag cctggtaggc tcccgaggcc ttggctgcag catttccagc    780
ggccccatcc agaagcctgg catctttatc agccatgtga acctggctc cctgtctgct    840
gaggtgggat tggagatagg ggaccagatt gtcgaagtca atggcgtcga cttctctaac    900
ctggatcaca aggaggctgt aaatgtgctg aaaaatagcc gcagcctgac catctccatt    960
gtagctgcag ctggccggga gctgttcatg acagaccggg agcggctggc agaggcgcgg   1020
cagcgtgagc tgcagcggca ggagcttctc atgcagaagc ggctggcgat ggagtccaac   1080
aagatcctcc aggagcagca ggagatggag cggcaaagga gaaaagaaat tgcccagaag   1140
gcagcagagg aaaatgagag ataccggaag gagatggaac agattgtaga ggaggaagag   1200
aagtttaaga agcaatggga agaagactgg ggctcaaagg aacagctact cttgcctaaa   1260
accatcactg ctgaggtaca cccagtaccc cttcgcaagc caaagtatga tcagggagtg   1320
gaacctgagc tcgagcccgc agatgacctg gatggaggca cggaggagca gggagagcag   1380
gatttccgga aatatgagga aggctttgac ccctactcta tgttcacccc agagcagatc   1440
atggggaagg atgtccggct cctacgcatc aagaaggagg gatccttaga cctggccctg   1500
gaaggcggtg tggactcccc cattgggaag gtggtcgttt ctgctgtgta tgagcggggga   1560
gctgctgagc ggcatggtgg cattgtgaaa ggggacgaga tcatgcaat caacggcaag   1620
attgtgacag actacaccct ggctgaggct gacgctgccc tgcagaaggc ctggaatcag   1680
ggcgggggact ggatcgacct tgtggttgcc gtctgccccc caaaggagta tgacgatgag   1740
ctgaccttct tgctgaagtc caaaagggga aaccaaattc acgcgttagg aaacagtgag   1800
ctccggcccc acctcgtgaa cacaaagcct cggaccagcc ttgagagagg ccacatgaca   1860
cacaccagat ggcatccttg ggacctgaat ctatcaccca ggaatctcaa actcccttg    1920
gccctgaacc agggccagat aaggaacagc tcgggccact tttttgaagg ccaatgtgga   1980
ggaaagggag cagccagccg tttgggagaa gatctcaagg atccagactc tcattccttt   2040
cctctggccc agtgaatttg gtctctccca gctttggggg actccttcct tgaaccctaa   2100
taagaccccca ctggagtctc tctctctcca tccctctcct ctgcccctct ctctaattgc   2160
tgccaggatt gtcactccaa accttactct gagctcatta ataaaataaa cagatttatt   2220
ttccagctta aaaaaa                                                    2236
```

         <210> 551
         <211> 652
         <212> PRT
         <213> Homo Sapiens

         <400> 551
Met Asp Arg Lys Val Ala Arg Glu Phe Arg His Lys Val Asp Phe Leu
1   5   10   15
Ile Glu Asn Asp Ala Glu Lys Asp Tyr Leu Tyr Asp Val Leu Arg Met
            20   25   30
Tyr His Gln Thr Met Asp Val Ala Val Leu Val Gly Asp Leu Lys Leu
        35   40   45
Val Ile Asn Glu Pro Ser Arg Leu Pro Leu Phe Asp Ala Ile Arg Pro
    50   55   60
Leu Ile Pro Leu Lys His Gln Val Glu Tyr Asp Gln Leu Thr Pro Arg
65   70   75   80
Arg Ser Arg Lys Leu Lys Glu Val Arg Leu Asp Arg Leu His Pro Glu
                85   90   95
Gly Leu Gly Leu Ser Val Arg Gly Gly Leu Glu Phe Gly Cys Gly Leu
            100   105   110
Phe Ile Ser His Leu Ile Lys Gly Gly Gln Ala Asp Ser Val Gly Leu

```
              115                    120                    125
Gln Val Gly Asp Glu Ile Val Arg Ile Asn Gly Tyr Ser Ile Ser Ser
     130                    135                    140
Cys Thr His Glu Glu Val Ile Asn Leu Ile Arg Thr Lys Lys Thr Val
145                    150                    155                    160
Ser Ile Lys Val Arg His Ile Gly Leu Ile Pro Val Lys Ser Ser Pro
                   165                    170                    175
Asp Glu Pro Leu Thr Trp Gln Tyr Val Asp Gln Phe Val Ser Glu Ser
              180                    185                    190
Gly Gly Val Arg Gly Ser Leu Gly Ser Pro Gly Asn Arg Glu Asn Lys
         195                    200                    205
Glu Lys Lys Val Phe Ile Ser Leu Val Gly Ser Arg Gly Leu Gly Cys
    210                    215                    220
Ser Ile Ser Ser Gly Pro Ile Gln Lys Pro Gly Ile Phe Ile Ser His
225                    230                    235                    240
Val Lys Pro Gly Ser Leu Ser Ala Glu Val Gly Leu Glu Ile Gly Asp
                   245                    250                    255
Gln Ile Val Glu Val Asn Gly Val Asp Phe Ser Asn Leu Asp His Lys
              260                    265                    270
Glu Ala Val Asn Val Leu Lys Asn Ser Arg Ser Leu Thr Ile Ser Ile
         275                    280                    285
Val Ala Ala Ala Gly Arg Glu Leu Phe Met Thr Asp Arg Glu Arg Leu
    290                    295                    300
Ala Glu Ala Arg Gln Arg Glu Leu Gln Arg Gln Glu Leu Leu Met Gln
305                    310                    315                    320
Lys Arg Leu Ala Met Glu Ser Asn Lys Ile Leu Gln Glu Gln Gln Glu
                   325                    330                    335
Met Glu Arg Gln Arg Arg Lys Glu Ile Ala Gln Lys Ala Ala Glu Glu
              340                    345                    350
Asn Glu Arg Tyr Arg Lys Glu Met Glu Gln Ile Val Glu Glu Glu Glu
         355                    360                    365
Lys Phe Lys Lys Gln Trp Glu Glu Asp Trp Gly Ser Lys Glu Gln Leu
    370                    375                    380
Leu Leu Pro Lys Thr Ile Thr Ala Glu Val His Pro Val Pro Leu Arg
385                    390                    395                    400
Lys Pro Lys Tyr Asp Gln Gly Val Glu Pro Glu Leu Glu Pro Ala Asp
                   405                    410                    415
Asp Leu Asp Gly Gly Thr Glu Glu Gln Gly Glu Gln Asp Phe Arg Lys
              420                    425                    430
Tyr Glu Glu Gly Phe Asp Pro Tyr Ser Met Phe Thr Pro Glu Gln Ile
         435                    440                    445
Met Gly Lys Asp Val Arg Leu Leu Arg Ile Lys Lys Glu Gly Ser Leu
    450                    455                    460
Asp Leu Ala Leu Glu Gly Gly Val Asp Ser Pro Ile Gly Lys Val Val
465                    470                    475                    480
Val Ser Ala Val Tyr Glu Arg Gly Ala Ala Glu Arg His Gly Gly Ile
                   485                    490                    495
Val Lys Gly Asp Glu Ile Met Ala Ile Asn Gly Lys Ile Val Thr Asp
              500                    505                    510
Tyr Thr Leu Ala Glu Ala Asp Ala Ala Leu Gln Lys Ala Trp Asn Gln
         515                    520                    525
Gly Gly Asp Trp Ile Asp Leu Val Val Ala Val Cys Pro Pro Lys Glu
    530                    535                    540
Tyr Asp Asp Glu Leu Thr Phe Leu Leu Lys Ser Lys Arg Gly Asn Gln
545                    550                    555                    560
```

```
Ile His Ala Leu Gly Asn Ser Glu Leu Arg Pro His Leu Val Asn Thr
                565                     570                 575
Lys Pro Arg Thr Ser Leu Glu Arg Gly His Met Thr His Thr Arg Trp
            580                     585             590
His Pro Trp Asp Leu Asn Leu Ser Pro Arg Asn Leu Lys Leu Pro Leu
        595                 600                 605
Ala Leu Asn Gln Gly Gln Ile Arg Asn Ser Ser Gly His Phe Phe Glu
        610                 615                 620
Gly Gln Cys Gly Gly Lys Gly Ala Ala Ser Arg Leu Gly Glu Asp Leu
625                 630                 635                 640
Lys Asp Pro Asp Ser His Ser Phe Pro Leu Ala Gln
                645                 650
```

```
        <210> 552
        <211> 2162
        <212> DNA
        <213> Homo Sapiens

        <400> 552
cctggcccgg tcgcggtcgc ggctctttcc agctcctggc agccgggcac ccgaaggaac      60
gggtcgtgca acgacgcagc tggacctggc ccagccatgg accgaaaagt ggcccgagaa     120
ttccggcata aggtggattt tctgattgaa aatgatgcag agaaggacta tctctatgat     180
gtgctgcgaa tgtaccacca gaccatggac gtggccgtgc tcgtgggaga cctgaagctg     240
gtcatcaatg aacccagccg tctgcctctg tttgatgcca ttcggccgct gatcccactg     300
aagcaccagg tggaatatga tcagctgacc ccccggcgct ccaggaagct gaaggaggtg     360
cgtctggacc gtctgcaccc cgaaggcctc ggcctgagtg tgcgtggtgg cctggagttt     420
ggctgtgggc tcttcatctc ccacctcatc aaaggcggtc aggcagacag cgtcgggctc     480
caggtagggg acgagatcgt ccggatcaat ggatattcca tctcctcctg tacccatgag     540
gaggtcatca acctcattcg aaccaagaaa actgtgtcca tcaaagtgag acacatcggc     600
ctgatccccg tgaaaagctc tcctgatgag cccctcactt ggcagtatgt ggatcagttt     660
gtgtcggaat ctgggggcgt gcgaggcagc ctgggctccc tggaaatcg ggaaaacaag      720
gagaagaagg tcttcatcag cctggtaggc tcccgaggcc ttggctgcag catttccagc     780
ggccccatcc agaagcctgg catctttatc agccatgtga acctggctc cctgtctgct      840
gaggtgggat tggagatagg ggaccagatt gtcgaagtca atggcgtcga cttctctaac     900
ctggatcaca ggaggctgt aaatgtgctg aaaaatagcc gcagcctgac catctccatt      960
gtagctgcag ctggccggga gctgttcatg acagaccggg agcggctggc agaggcgcgg    1020
cagcgtgagc tgcagcggca ggagcttctc atgcagaagc ggctggcgat ggagtccaac    1080
aagatcctcc aggagcagca ggagatggag cggcaaagga gaaaagaaat tgcccagaag    1140
gcagcagagg aaaatgagag ataccggaag gagatggaac agattgtaga ggaggaagag    1200
aagtttaaga gcaatggga gaagactggg ggctcaaagg aacagctact cttgcctaaa     1260
accatcactg ctgaggtaca cccagtaccc cttcgcaagc caaagtgatt tccggaaata    1320
tgaggaaggc tttgaccct actctatgtt cacccagag cagatcatgg ggaaggatgt      1380
ccggctccta cgcatcaaga aggagggatc cttagacctg ccctggaag gcggtgtgga     1440
ctcccccatt gggaaggtgg tcgtttctgc tgtgtatgag cggggagctg ctgagcggca    1500
tggtggcatt gtgaaagggg acgagatcat ggcaatcaac ggcaagattg tgacagacta    1560
caccctggct gaggctgacg ctgccctgca gaaggcctgg aatcagggcg gggactggat    1620
cgaccttgtg gttgccgtct gcccccaaa ggagtatgac gatgagctga ccttcttgct     1680
gaagtccaaa aggggaaacc aaattcacgc gttaggaaac agtgagctcc ggccccacct    1740
cgtgaacaca aagcctcgga ccagccttga gagaggccac atgacacaca ccagatggca    1800
tccttgggac ctgaatctat cacccaggaa tctcaaactc cctttggccc tgaaccaggg    1860
ccagataagg aacagctcgg ccactttttt tgaaggccaa tgtggaggaa agggagcagc    1920
cagccgtttg ggagaagatc tcaaggatcc agactctcat tccttcctc tggcccagtg     1980
aatttggtct ctcccagctt gggggactc cttccttgaa ccctaataag accccactgg     2040
agtctctctc tctccatccc tctcctctgc cctctgctct aattgctgcc aggattgtca    2100
ctccaaacct tactctgagc tcattaataa aataaacaga tttattttcc agcttaaaaa    2160
```

aa   2162

```
        <210> 553
        <211> 403
        <212> PRT
        <213> Homo Sapiens


        <400> 553
Met Asp Arg Lys Val Ala Arg Glu Phe Arg His Lys Val Asp Phe Leu
1               5                   10                  15
Ile Glu Asn Asp Ala Glu Lys Asp Tyr Leu Tyr Asp Val Leu Arg Met
            20                  25                  30
Tyr His Gln Thr Met Asp Val Ala Val Leu Val Gly Asp Leu Lys Leu
        35                  40                  45
Val Ile Asn Glu Pro Ser Arg Leu Pro Leu Phe Asp Ala Ile Arg Pro
    50                  55                  60
Leu Ile Pro Leu Lys His Gln Val Glu Tyr Asp Gln Leu Thr Pro Arg
65                  70                  75                  80
Arg Ser Arg Lys Leu Lys Glu Val Arg Leu Asp Arg Leu His Pro Glu
            85                  90                  95
Gly Leu Gly Leu Ser Val Arg Gly Gly Leu Glu Phe Gly Cys Gly Leu
            100                 105                 110
Phe Ile Ser His Leu Ile Lys Gly Gly Gln Ala Asp Ser Val Gly Leu
        115                 120                 125
Gln Val Gly Asp Glu Ile Val Arg Ile Asn Gly Tyr Ser Ile Ser Ser
        130                 135                 140
Cys Thr His Glu Glu Val Ile Asn Leu Ile Arg Thr Lys Lys Thr Val
145                 150                 155                 160
Ser Ile Lys Val Arg His Ile Gly Leu Ile Pro Val Lys Ser Ser Pro
                165                 170                 175
Asp Glu Pro Leu Thr Trp Gln Tyr Val Asp Gln Phe Val Ser Glu Ser
            180                 185                 190
Gly Gly Val Arg Gly Ser Leu Gly Ser Pro Gly Asn Arg Glu Asn Lys
            195                 200                 205
Glu Lys Lys Val Phe Ile Ser Leu Val Gly Ser Arg Gly Leu Gly Cys
    210                 215                 220
Ser Ile Ser Ser Gly Pro Ile Gln Lys Pro Gly Ile Phe Ile Ser His
225                 230                 235                 240
Val Lys Pro Gly Ser Leu Ser Ala Glu Val Gly Leu Glu Ile Gly Asp
            245                 250                 255
Gln Ile Val Glu Val Asn Gly Val Asp Phe Ser Asn Leu Asp His Lys
            260                 265                 270
Glu Ala Val Asn Val Leu Lys Asn Ser Arg Ser Leu Thr Ile Ser Ile
        275                 280                 285
Val Ala Ala Ala Gly Arg Glu Leu Phe Met Thr Asp Arg Glu Arg Leu
        290                 295                 300
Ala Glu Ala Arg Gln Arg Glu Leu Gln Arg Gln Glu Leu Leu Met Gln
305                 310                 315                 320
Lys Arg Leu Ala Met Glu Ser Asn Lys Ile Leu Gln Glu Gln Gln Glu
                325                 330                 335
Met Glu Arg Gln Arg Arg Lys Glu Ile Ala Gln Lys Ala Ala Glu Glu
            340                 345                 350
Asn Glu Arg Tyr Arg Lys Glu Met Glu Gln Ile Val Glu Glu Glu Glu
            355                 360                 365
Lys Phe Lys Lys Gln Trp Glu Glu Asp Trp Gly Ser Lys Glu Gln Leu
```

                                -287-

```
        370                    375                    380
Leu Leu Pro Lys Thr Ile Thr Ala Glu Val His Pro Val Pro Leu Arg
385                    390                    395                    400
Lys Pro Lys
```

```
        <210> 554
        <211> 1789
        <212> DNA
        <213> Homo Sapiens

        <400> 554
cttctggatg catccgagaa gctaaaactt acttatgagg aaaagtgtga aattgaggaa      60
tcccaattga agtttttgag gaacgactta gctgaatatc agagaacttg tgaagatctt     120
aaagagcaac taaagcataa agaatttctt ctggctgcta atacttgtaa ccgtgttggt     180
ggtctttgtt tgaaatgtgc tcagcatgaa gctgttcttt cccaaaccca tactaatgtt     240
catatgcaga ccatcgaaag actggttaaa gaaagagatg acttgatgtc tgcactagtt     300
tccgtaagga gcagcttggc agatacgcag caaagagaag caagtgctta tgaacaggtg     360
aaacaagttt tgcaaatatc tgaggaagcc aattttgaaa aaaccaaggc tttaatccag     420
tgtgaccagt tgaggaagga gctggagagg caggcggagc gacttgaaaa agaacttgca     480
tctcagcaag agaaaagggc cattgagaaa gacatgatga aaaggaaat  aacgaaagaa     540
agggagtaca tgggatcaaa gatgttgatc ttgtctcaga atattgccca actggaggcc     600
caggtggaaa aggttacaaa ggaaaagatt tcagctatta tcaactgga ggaaattcaa      660
agccagctgg cttctcggga aatggatgtc acaaaggtgt gtggagaaat gcgctatcag     720
ctgaataaaa ccaacatgga gaaggatgag gcagaaaagg agcacagaga gttcagagca     780
aaaactaaca gggatcttga aattaaagat caggaaatag agaaattgag aatagaactg     840
gatgaaagca acaacacttt ggaacaggag cagcagaagg cagccctggc cagagaggag     900
tgcctgagac taacagaact gctgggcgaa tctgagcacc aactgcacct caccagacag     960
gaaaaagata gcattcagca gagctttagc aaggaagcaa aggcccaagc ccttcaggcc    1020
cagcaaagag agcaggagct gacacagaag atacagcaaa tggaagccca gcatgacaaa    1080
actgaaaatg aacagtattt gttgctgacc tcccagaata cattttgac  aaagttaaag    1140
gaagaatgct gtacattagc caagaaactg gaacaaatct ctcaaaaaac cagatctgaa    1200
atagctcaac tcagtcaaga aaaaaggtat acatatgata aattgggaaa gttacagaga    1260
agaaatgaag aattggagga acagtgtgtc cagcatggga gagtacatga acgatgaag    1320
caaaggctaa ggcagctgga taagcacagc caggccacag cccagcagct ggtgcagctc    1380
ctcagcaagc agaaccagct tctcctggag aggcagagcc tgtcggaaga ggtggaccgg    1440
ctgcggaccc agttacccag catgccacaa tctgattgct gacctggatg aacagagtg     1500
aaataaatga attacaaaga gatatttaca ttcatctggt ttagacttaa tatgccacaa    1560
cgcaccacga ccttcccagg gtgacaccgc ctcagcctgc agtggggctg gtcctcatca    1620
acgcgggcgc tgtccccgca cgcagtcggg ctggagctgg agtctgactc tagctgagca    1680
gactcctggt gtatgttttc agaaatggct tgaagttatg tgtttaaatc tgctcattcg    1740
tatgctaggt tatacatatg attttcaata aatgaacttt ttaaagaaa              1789
```

```
        <210> 555
        <211> 493
        <212> PRT
        <213> Homo Sapiens

        <400> 555
Leu Leu Asp Ala Ser Glu Lys Leu Lys Leu Thr Tyr Glu Glu Lys Cys
1               5                  10                  15
Glu Ile Glu Glu Ser Gln Leu Lys Phe Leu Arg Asn Asp Leu Ala Glu
            20                  25                  30
Tyr Gln Arg Thr Cys Glu Asp Leu Lys Glu Gln Leu Lys His Lys Glu
        35                  40                  45
```

```
Phe Leu Leu Ala Ala Asn Thr Cys Asn Arg Val Gly Gly Leu Cys Leu
    50                  55                  60
Lys Cys Ala Gln His Glu Ala Val Leu Ser Gln Thr His Thr Asn Val
65                  70                  75                  80
His Met Gln Thr Ile Glu Arg Leu Val Lys Glu Arg Asp Asp Leu Met
            85                  90                  95
Ser Ala Leu Val Ser Val Arg Ser Ser Leu Ala Asp Thr Gln Gln Arg
            100                 105                 110
Glu Ala Ser Ala Tyr Glu Gln Val Lys Gln Val Leu Gln Ile Ser Glu
            115                 120                 125
Glu Ala Asn Phe Glu Lys Thr Lys Ala Leu Ile Gln Cys Asp Gln Leu
    130                 135                 140
Arg Lys Glu Leu Glu Arg Gln Ala Glu Arg Leu Glu Lys Glu Leu Ala
145                 150                 155                 160
Ser Gln Gln Glu Lys Arg Ala Ile Glu Lys Asp Met Met Lys Lys Glu
                165                 170                 175
Ile Thr Lys Glu Arg Glu Tyr Met Gly Ser Lys Met Leu Ile Leu Ser
            180                 185                 190
Gln Asn Ile Ala Gln Leu Glu Ala Gln Val Glu Lys Val Thr Lys Glu
            195                 200                 205
Lys Ile Ser Ala Ile Asn Gln Leu Glu Glu Ile Gln Ser Gln Leu Ala
    210                 215                 220
Ser Arg Glu Met Asp Val Thr Lys Val Cys Gly Glu Met Arg Tyr Gln
225                 230                 235                 240
Leu Asn Lys Thr Asn Met Glu Lys Asp Glu Ala Glu Lys Glu His Arg
                245                 250                 255
Glu Phe Arg Ala Lys Thr Asn Arg Asp Leu Glu Ile Lys Asp Gln Glu
            260                 265                 270
Ile Glu Lys Leu Arg Ile Glu Leu Asp Glu Ser Lys Gln His Leu Glu
            275                 280                 285
Gln Glu Gln Gln Lys Ala Ala Leu Ala Arg Glu Glu Cys Leu Arg Leu
    290                 295                 300
Thr Glu Leu Leu Gly Glu Ser Glu His Gln Leu His Leu Thr Arg Gln
305                 310                 315                 320
Glu Lys Asp Ser Ile Gln Gln Ser Phe Ser Lys Glu Ala Lys Ala Gln
                325                 330                 335
Ala Leu Gln Ala Gln Gln Arg Glu Gln Glu Leu Thr Gln Lys Ile Gln
            340                 345                 350
Gln Met Glu Ala Gln His Asp Lys Thr Glu Asn Glu Gln Tyr Leu Leu
            355                 360                 365
Leu Thr Ser Gln Asn Thr Phe Leu Thr Lys Leu Lys Glu Glu Cys Cys
    370                 375                 380
Thr Leu Ala Lys Lys Leu Glu Gln Ile Ser Gln Lys Thr Arg Ser Glu
385                 390                 395                 400
Ile Ala Gln Leu Ser Gln Glu Lys Arg Tyr Thr Tyr Asp Lys Leu Gly
            405                 410                 415
Lys Leu Gln Arg Arg Asn Glu Glu Leu Glu Glu Gln Cys Val Gln His
            420                 425                 430
Gly Arg Val His Glu Thr Met Lys Gln Arg Leu Arg Gln Leu Asp Lys
            435                 440                 445
His Ser Gln Ala Thr Ala Gln Gln Leu Val Gln Leu Leu Ser Lys Gln
    450                 455                 460
Asn Gln Leu Leu Leu Glu Arg Gln Ser Leu Ser Glu Glu Val Asp Arg
465                 470                 475                 480
Leu Arg Thr Gln Leu Pro Ser Met Pro Gln Ser Asp Cys
```

-289-

```
              485                    490

     <210> 556
     <211> 1306
     <212> DNA
     <213> Homo Sapiens

     <400> 556
aaaaatagcc gcagcctgac catctccatt gtagctgcag ctggccggga gctgttcatg      60
acagaccggg agcggctggc agaggcgcgg cagcgtgagc tgcagcggca ggagcttctc     120
atgcagaagc ggctggcgat ggagtccaac aagatcctcc aggagcagca ggagatggag     180
cggcaaagga gaaaagaaat tgcccagaag gcagcagagg aaaatgagag ataccggaag     240
gagatggaac agattgtaga ggaggaagag aagtttaaga agcaatggga agaagactgg     300
ggctcaaagg aacagctact cttgcctaaa accatcactg ctgaggtaca cccagtaccc     360
cttcgcaagc caaagtatga tcagggagtg gaacctgagc tcgagcccgc agatgacctg     420
gatggaggca cggaggagca gggagagcag gatttccgga aatatgagga aggctttgac     480
ccctactcta tgttcacccc agagcagatc atggggaagg atgtccggct cctacgcatc     540
aagaaggagg gatccttaga cctggccctg gaaggcggtg tggactcccc cattgggaag     600
gtggtcgttt ctgctgtgta tgagcgggga gctgctgagc ggcatggtgg cattgtgaaa     660
ggggacgaga tcatggcaat caacggcaag attgtgacag actacaccct ggctgaggct     720
gacgctgccc tgcagaaggc ctggaatcag ggcgggggact ggatcgacct tgtggttgcc     780
gtctgccccc caaaggagta tgacgatgag ctgaccttct tgctgaagtc caaaaggga     840
aaccaaattc acgcgttagg aaacagtgag ctccggcccc acctcgtgaa cacaaagcct     900
cggaccagcc ttgagagagg ccacatgaca cacaccagat ggcatccttg ggacctgaat     960
ctatcaccca ggaatctcaa actcccttg gccctgaacc agggccagat aaggaacagc    1020
tcgggccact tttttgaagg ccaatgtgga ggaaagggag cagccagccg tttgggagaa    1080
gatctcaagg atccagactc tcattccttt cctctggccc agtgaatttg gtctctccca    1140
gctttggggg actccttcct tgaaccctaa taagacccca ctggagtctc tctctctcca    1200
tccctctcct ctgccctctg ctctaattgc tgccaggatt gtcactccaa accttactct    1260
gagctcatta ataaaataaa cagatttatt ttccagctta aaaaaa                   1306

     <210> 557
     <211> 328
     <212> PRT
     <213> Homo Sapiens

     <400> 557
Met Glu Ser Asn Lys Ile Leu Gln Glu Gln Gln Glu Met Glu Arg Gln
1               5                   10                  15
Arg Arg Lys Glu Ile Ala Gln Lys Ala Ala Glu Glu Asn Glu Arg Tyr
            20                  25                  30
Arg Lys Glu Met Glu Gln Ile Val Glu Glu Glu Lys Phe Lys Lys
        35                  40                  45
Gln Trp Glu Glu Asp Trp Gly Ser Lys Glu Gln Leu Leu Leu Pro Lys
    50                  55                  60
Thr Ile Thr Ala Glu Val His Pro Val Pro Leu Arg Lys Pro Lys Tyr
65                  70                  75                  80
Asp Gln Gly Val Glu Pro Glu Leu Glu Pro Ala Asp Asp Leu Asp Gly
                85                  90                  95
Gly Thr Glu Glu Gln Gly Glu Gln Asp Phe Arg Lys Tyr Glu Glu Gly
            100                 105                 110
Phe Asp Pro Tyr Ser Met Phe Thr Pro Glu Gln Ile Met Gly Lys Asp
        115                 120                 125
Val Arg Leu Leu Arg Ile Lys Lys Glu Gly Ser Leu Asp Leu Ala Leu
    130                 135                 140
```

-290-

Glu Gly Gly Val Asp Ser Pro Ile Gly Lys Val Val Val Ser Ala Val
145   150   155   160
Tyr Glu Arg Gly Ala Ala Glu Arg His Gly Gly Ile Val Lys Gly Asp
                    165   170   175
Glu Ile Met Ala Ile Asn Gly Lys Ile Val Thr Asp Tyr Thr Leu Ala
                180   185   190
Glu Ala Asp Ala Ala Leu Gln Lys Ala Trp Asn Gln Gly Gly Asp Trp
            195   200   205
Ile Asp Leu Val Val Ala Val Cys Pro Pro Lys Glu Tyr Asp Asp Glu
    210   215   220
Leu Thr Phe Leu Leu Lys Ser Lys Arg Gly Asn Gln Ile His Ala Leu
225   230   235   240
Gly Asn Ser Glu Leu Arg Pro His Leu Val Asn Thr Lys Pro Arg Thr
                    245   250   255
Ser Leu Glu Arg Gly His Met Thr His Thr Arg Trp His Pro Trp Asp
                260   265   270
Leu Asn Leu Ser Pro Arg Asn Leu Lys Leu Pro Leu Ala Leu Asn Gln
            275   280   285
Gly Gln Ile Arg Asn Ser Ser Gly His Phe Phe Glu Gly Gln Cys Gly
        290   295   300
Gly Lys Gly Ala Ala Ser Arg Leu Gly Glu Asp Leu Lys Asp Pro Asp
305   310   315   320
Ser His Ser Phe Pro Leu Ala Gln
                325

          <210> 558
          <211> 2289
          <212> DNA
          <213> Homo Sapiens

          <400> 558
          cctggcccgg tcgcggtcgc ggctcttttcc agctcctggc agccgggcac ccgaaggaac   60
          gggtcgtgca acgacgcagc tggacctggc ccagccatgg accgaaaagt ggcccgagaa   120
          ttccggcata aggtggattt tctgattgaa aatgatgcag agaaggacta tctctatgat   180
          gtgctgcgaa tgtaccacca gaccatggac gtggccgtgc tcgtgggaga cctgaagctg   240
          gtcatcaatg aacccagccg tctgcctctg tttgatgcca ttcggccgct gatcccactg   300
          aagcaccagg tggaatatga tcagctgacc ccccggcgct ccaggaagct gaaggaggtg   360
          cgtctggacc gtctgcaccc cgaaggcctc ggcctgagtg tgcgtggtgg cctggagttt   420
          ggctgtgggc tcttcatctc ccacctcatc aaaggcggtc aggcagacag cgtcgggctc   480
          caggtagggg acgagatcgt ccggatcaat ggatattcca tctcctcctg tacccatgag   540
          gaggtcatca acctcattcg aaccaagaaa actgtgtcca tcaaagtgag acacatcggc   600
          ctgatccccg tgaaaagctc tcctgatgag cccctcactt ggcagtatgt ggatcagttt   660
          gtgtcggaat ctggggggcgt gcgaggcagc ctgggctccc ctggaaatcg ggaaaacaag   720
          gagaagaagg tcttcatcag cctggtaggc tcccgaggcc ttggctgcag catttccagc   780
          ggccccatcc agaagcctgg catctttatc agccatgtga acctggctc cctgtctgct   840
          gaggtgggat tggagatagg ggaccagatt gtcgaagtca atggcgtcga cttctctaac   900
          ctggatcaca aggaggctgt aaatgtgctg aaaaatagcc gcagcctgac catctccatt   960
          gtagctgcag ctggccggga gctgttcatg acagaccggg agcggctggc agaggcgcgg   1020
          cagcgtgagc tgcagcggca ggagcttctc atgcagaagc ggctggcgat ggagtccaac   1080
          aagatcctcc aggagcagca ggagatggag cggcaaagga gaaagaaat tgcccagaag   1140
          gcagcagagg aaaatgagag ataccggaag gagatggaac agattgtaga ggaggaagag   1200
          aagtttaaga gcaatggga agaagactgg ggctcaaagg aacagctact cttgcctaaa   1260
          accatcactg ctgaggtaca cccagtaccc cttcgcaagc caaagtatga tcaggagtg   1320
          gaacctgagc tcgagcccgc agatgacctg gatggaggca cggaggagca gggagagcag   1380
          ccacaggaga tgttgaagag gatggtggtt tatcaagaca gcattcaaga caagatttcc   1440

                                  -291-

```
ggaaatatga ggaaggcttt gacccctact ctatgttcac cccagagcag atcatgggga    1500
aggatgtccg gctcctacgc atcaagaagg agggatcctt agacctggcc ctggaaggcg    1560
gtgtggactc ccccattggg aaggtggtcg tttctgctgt gtatgagcgg ggagctgctg    1620
agcggcatgg tggcattgtg aaaggggacg agatcatggc aatcaacggc aagattgtga    1680
cagactacac cctggctgag gctgacgctg ccctgcagaa ggcctggaat cagggcgggg    1740
actggatcga ccttgtggtt gccgtctgcc ccccaaagga gtatgacgat gagctgacct    1800
tcttgctgaa gtccaaaagg ggaaaccaaa ttcacgcgtt aggaaacagt gagctccggc    1860
cccacctcgt gaacacaaag cctcggacca gccttgagag aggccacatg acacacacca    1920
gatggcatcc ttgggacctg aatctatcac ccaggaatct caaactccct ttggccctga    1980
accagggcca gataaggaac agctcgggcc acttttttga aggccaatgt ggaggaaagg    2040
gagcagccag ccgtttggga aagatctca aggatccaga ctctcattcc tttcctctgg     2100
cccagtgaat ttggtctctc ccagctttgg gggactcctt ccttgaaccc taataagacc    2160
ccactggagt ctctctctct ccatccctct cctctgccct ctgctctaat tgctgccagg    2220
attgtcactc caaaccttac tctgagctca ttaataaaat aaacagattt attttccagc    2280
ttaaaaaaa                                                            2289
```

```
         <210> 559
         <211> 481
         <212> PRT
         <213> Homo Sapiens


         <400> 559
Met Asp Arg Lys Val Ala Arg Glu Phe Arg His Lys Val Asp Phe Leu
1               5                   10                  15
Ile Glu Asn Asp Ala Glu Lys Asp Tyr Leu Tyr Asp Val Leu Arg Met
            20                  25                  30
Tyr His Gln Thr Met Asp Val Ala Val Leu Val Gly Asp Leu Lys Leu
        35                  40                  45
Val Ile Asn Glu Pro Ser Arg Leu Pro Leu Phe Asp Ala Ile Arg Pro
    50                  55                  60
Leu Ile Pro Leu Lys His Gln Val Glu Tyr Asp Gln Leu Thr Pro Arg
65                  70                  75                  80
Arg Ser Arg Lys Leu Lys Glu Val Arg Leu Asp Arg Leu His Pro Glu
                85                  90                  95
Gly Leu Gly Leu Ser Val Arg Gly Gly Leu Glu Phe Gly Cys Gly Leu
            100                 105                 110
Phe Ile Ser His Leu Ile Lys Gly Gly Gln Ala Asp Ser Val Gly Leu
        115                 120                 125
Gln Val Gly Asp Glu Ile Val Arg Ile Asn Gly Tyr Ser Ile Ser Ser
    130                 135                 140
Cys Thr His Glu Glu Val Ile Asn Leu Ile Arg Thr Lys Lys Thr Val
145                 150                 155                 160
Ser Ile Lys Val Arg His Ile Gly Leu Ile Pro Val Lys Ser Ser Pro
                165                 170                 175
Asp Glu Pro Leu Thr Trp Gln Tyr Val Asp Gln Phe Val Ser Glu Ser
            180                 185                 190
Gly Gly Val Arg Gly Ser Leu Gly Ser Pro Gly Asn Arg Glu Asn Lys
        195                 200                 205
Glu Lys Lys Val Phe Ile Ser Leu Val Gly Ser Arg Gly Leu Gly Cys
    210                 215                 220
Ser Ile Ser Ser Gly Pro Ile Gln Lys Pro Gly Ile Phe Ile Ser His
225                 230                 235                 240
Val Lys Pro Gly Ser Leu Ser Ala Glu Val Gly Leu Glu Ile Gly Asp
                245                 250                 255
Gln Ile Val Glu Val Asn Gly Val Asp Phe Ser Asn Leu Asp His Lys
```

```
                    260                 265                 270
Glu Ala Val Asn Val Leu Lys Asn Ser Arg Ser Leu Thr Ile Ser Ile
        275                 280                 285
Val Ala Ala Ala Gly Arg Glu Leu Phe Met Thr Asp Arg Glu Arg Leu   .
    290                 295                 300
Ala Glu Ala Arg Gln Arg Glu Leu Gln Arg Gln Glu Leu Leu Met Gln
305                 310                 315                 320
Lys Arg Leu Ala Met Glu Ser Asn Lys Ile Leu Gln Glu Gln Gln Glu
                325                 330                 335
Met Glu Arg Gln Arg Arg Lys Glu Ile Ala Gln Lys Ala Ala Glu Glu
            340                 345                 350
Asn Glu Arg Tyr Arg Lys Glu Met Glu Gln Ile Val Glu Glu Glu Glu
        355                 360                 365
Lys Phe Lys Lys Gln Trp Glu Glu Asp Trp Gly Ser Lys Glu Gln Leu
    370                 375                 380
Leu Leu Pro Lys Thr Ile Thr Ala Glu Val His Pro Val Pro Leu Arg
385                 390                 395                 400
Lys Pro Lys Tyr Asp Gln Gly Val Glu Pro Glu Leu Glu Pro Ala Asp
                405                 410                 415
Asp Leu Asp Gly Gly Thr Glu Glu Gln Gly Glu Gln Pro Gln Glu Met
            420                 425                 430
Leu Lys Arg Met Val Val Tyr Gln Asp Ser Ile Gln Asp Lys Ile Ser
        435                 440                 445
Gly Asn Met Arg Lys Ala Leu Thr Pro Thr Leu Cys Ser Pro Gln Ser
    450                 455                 460
Arg Ser Trp Gly Arg Met Ser Gly Ser Tyr Ala Ser Arg Arg Arg Asp
465                 470                 475                 480
Pro
```

```
        <210> 560
        <211> 2409
        <212> DNA
        <213> Homo Sapiens

        <400> 560
        cctggcccgg tcgcggtcgc ggctctttcc agctcctggc agccgggcac ccgaaggaac    60
        gggtcgtgca acgacgcagc tggacctggc ccagccatgg accgaaaagt ggcccgagaa   120
        ttccggcata aggtggattt tctgattgaa aatgatgcag agaaggacta tctctatgat   180
        gtgctgcgaa tgtaccacca gaccatggac gtggccgtgc tcgtgggaga cctgaagctg   240
        gtcatcaatg aacccagccg tctgcctctg tttgatgcca ttcggccgct gatcccactg   300
        aagcaccagg tggaatatga tcagctgacc cccggcgct ccaggaagct gaaggaggtg   360
        cgtctggacc gtctgcaccc cgaaggcctc ggcctgagtg tgcgtggtgg cctggagttt   420
        ggctgtgggc tcttcatctc ccacctcatc aaaggcggtc aggcagacag cgtcgggctc   480
        caggtagggg acgagatcgt ccggatcaat ggatattcca tctcctcctg tacccatgag   540
        gaggtcatca acctcattcg aaccaagaaa actgtgtcca tcaaagtgag acacatcggc   600
        ctgatccccg tgaaaagctc tcctgatgag cccctcactt ggcagtatgt ggatcagttt   660
        gtgtcggaat ctgggggcgt gcgaggcagc ctgggctccc ctgaaatcg ggaaaacaag   720
        gagaagaagg tcttcatcag cctggtaggc tcccgaggcc ttggctgcag catttccagc   780
        ggccccatcc agaagcctgg catctttatc agccatgtga aacctggctc cctgtctgct   840
        gaggtgggat tggagatagg ggaccagatt gtcgaagtca atggcgtcga cttctctaac   900
        ctggatcaca ggaggctgt aaatgtgctg aaaaatagcc gcagcctgac catctccatt   960
        gtagctgcag ctggccggga gctgttcatg acagaccggg agcggctggc agaggcgcgg  1020
        cagcgtgagc tgcagcggca ggagcttctc atgcagaagc ggctggcgat ggagtccaac  1080
        aagatcctcc aggagcagca ggagatggag cggcaaagga gaaaagaaat tgcccagaag  1140
```

```
gcagcagagg aaaatgagag ataccggaag gagatggaac agattgtaga ggaggaagag   1200
aagtttaaga agcaatggga agaagactgg ggctcaaagg aacagctact cttgcctaaa   1260
accatcactg ctgaggtaca cccagtaccc cttcgcaagc caaagtatga tcagggagtg   1320
gaacctgagc tcgagcccgc agatgacctg gatggaggca cggaggagca gggagagcag   1380
acattttgcc caagcccaca gcctccacga ggccctggcg tgtccaccat ctccaaacct   1440
gtcatggtcc accaggagcc caatttcatc tacaggccag ctgtgaaatc tgaagttctg   1500
ccacaggaga tgttgaagag gatggtggtt tatcaagaca gcattcaaga caagatttcc   1560
ggaaatatga ggaaggcttt gaccccctact ctatgttcac cccagagcag atcatgggga   1620
aggatgtccg gctcctacgc atcaagaagg agggatcctt agacctggcc ctggaaggcg   1680
gtgtggactc ccccattggg aaggtggtcg tttctgctgt gtatgagcgg ggagctgctg   1740
agcggcatgg tggcattgtg aaagggacg agatcatggc aatcaacggc aagattgtga   1800
cagactacac cctggctgag gctgacgctg ccctgcagaa ggcctggaat cagggcgggg   1860
actggatcga ccttgtggtt gccgtctgcc ccccaaagga gtatgacgat gagctgacct   1920
tcttgctgaa gtccaaaagg ggaaaccaaa ttcacgcgtt aggaaacagt gagctccggc   1980
cccacctcgt gaacacaaag cctcggacca gccttgagag aggccacatg acacacacca   2040
gatggcatcc ttgggacctg aatctatcac ccaggaatct caaactccct ttggccctga   2100
accagggcca gataaggaac agctcgggcc acttttttga aggccaatgt ggaggaaagg   2160
gagcagccag ccgtttggga gaagatctca aggatccaga ctctcattcc tttcctctgg   2220
cccagtgaat ttggtctctc ccagctttgg gggactcctt ccttgaaccc taataagacc   2280
ccactggagt ctctctctct ccatccctct cctctgccct ctgctctaat tgctgccagg   2340
attgtcactc caaaccttac tctgagctca ttaataaaat aaacagattt attttccagc   2400
ttaaaaaaa                                                          2409
```

```
          <210> 561
          <211> 521
          <212> PRT
          <213> Homo Sapiens

          <400> 561
Met Asp Arg Lys Val Ala Arg Glu Phe Arg His Lys Val Asp Phe Leu
1               5                   10                  15
Ile Glu Asn Asp Ala Glu Lys Asp Tyr Leu Tyr Asp Val Leu Arg Met
            20                  25                  30
Tyr His Gln Thr Met Asp Val Ala Val Leu Val Gly Asp Leu Lys Leu
        35                  40                  45
Val Ile Asn Glu Pro Ser Arg Leu Pro Leu Phe Asp Ala Ile Arg Pro
    50                  55                  60
Leu Ile Pro Leu Lys His Gln Val Glu Tyr Asp Gln Leu Thr Pro Arg
65                  70                  75                  80
Arg Ser Arg Lys Leu Lys Glu Val Arg Leu Asp Arg Leu His Pro Glu
                85                  90                  95
Gly Leu Gly Leu Ser Val Arg Gly Gly Leu Glu Phe Gly Cys Gly Leu
            100                 105                 110
Phe Ile Ser His Leu Ile Lys Gly Gly Gln Ala Asp Ser Val Gly Leu
        115                 120                 125
Gln Val Gly Asp Glu Ile Val Arg Ile Asn Gly Tyr Ser Ile Ser Ser
    130                 135                 140
Cys Thr His Glu Glu Val Ile Asn Leu Ile Arg Thr Lys Lys Thr Val
145                 150                 155                 160
Ser Ile Lys Val Arg His Ile Gly Leu Ile Pro Val Lys Ser Ser Pro
                165                 170                 175
Asp Glu Pro Leu Thr Trp Gln Tyr Val Asp Gln Phe Val Ser Glu Ser
            180                 185                 190
Gly Gly Val Arg Gly Ser Leu Gly Ser Pro Gly Asn Arg Glu Asn Lys
        195                 200                 205
```

Glu Lys Lys Val Phe Ile Ser Leu Val Gly Ser Arg Gly Leu Gly Cys
    210   215   220
Ser Ile Ser Ser Gly Pro Ile Gln Lys Pro Gly Ile Phe Ile Ser His
225   230   235   240
Val Lys Pro Gly Ser Leu Ser Ala Glu Val Gly Leu Glu Ile Gly Asp
                245   250   255
Gln Ile Val Glu Val Asn Gly Val Asp Phe Ser Asn Leu Asp His Lys
                260   265   270
Glu Ala Val Asn Val Leu Lys Asn Ser Arg Ser Leu Thr Ile Ser Ile
            275   280   285
Val Ala Ala Ala Gly Arg Glu Leu Phe Met Thr Asp Arg Glu Arg Leu
        290   295   300
Ala Glu Ala Arg Gln Arg Glu Leu Gln Arg Gln Glu Leu Leu Met Gln
305   310   315   320
Lys Arg Leu Ala Met Glu Ser Asn Lys Ile Leu Gln Glu Gln Gln Glu
                325   330   335
Met Glu Arg Gln Arg Arg Lys Glu Ile Ala Gln Lys Ala Ala Glu Glu
            340   345   350
Asn Glu Arg Tyr Arg Lys Glu Met Glu Gln Ile Val Glu Glu Glu Glu
        355   360   365
Lys Phe Lys Lys Gln Trp Glu Glu Asp Trp Gly Ser Lys Glu Gln Leu
    370   375   380
Leu Leu Pro Lys Thr Ile Thr Ala Glu Val His Pro Val Pro Leu Arg
385   390   395   400
Lys Pro Lys Tyr Asp Gln Gly Val Glu Pro Glu Leu Glu Pro Ala Asp
                405   410   415
Asp Leu Asp Gly Gly Thr Glu Glu Gln Gly Glu Gln Thr Phe Cys Pro
            420   425   430
Ser Pro Gln Pro Pro Arg Gly Pro Gly Val Ser Thr Ile Ser Lys Pro
        435   440   445
Val Met Val His Gln Glu Pro Asn Phe Ile Tyr Arg Pro Ala Val Lys
    450   455   460
Ser Glu Val Leu Pro Gln Glu Met Leu Lys Arg Met Val Val Tyr Gln
465   470   475   480
Asp Ser Ile Gln Asp Lys Ile Ser Gly Asn Met Arg Lys Ala Leu Thr
                485   490   495
Pro Thr Leu Cys Ser Pro Gln Ser Arg Ser Trp Gly Arg Met Ser Gly
            500   505   510
Ser Tyr Ala Ser Arg Arg Arg Asp Pro
    515   520

        <210> 562
        <211> 1445
        <212> DNA
        <213> Homo Sapiens

        <400> 562
ctccggcagg gagtcctagc gcagactttg cggttcatgg agagtctctg ggagacaggc   60
acctgcggac gctgcagata agttacgacg cactgaaaga tgaaaattct aagctgagaa   120
gaaagctgaa tgaggttcag agcttctctg aagctcaaac agaaatggtg aggacgcttg   180
agcggaagtt agaagcaaaa atgatcaagg aggaaagcga ctaccacgac ctggagtcgg   240
tggttcagca ggtggagcag aacctggagc tgatgaccaa acgggctgta aaggcagaaa   300
accacgtcgt gaaactaaaa caggaaatca gtttgctcca ggcgcaggtc tccaacttcc   360
agcgagagaa tgaagccctg cggtgcggcc agggtgccag cctgaccgtg gtgaagcaga   420
acgccgacgt ggccctgcag aacctccggg tggtcatgaa cagtgcacag gcttccatca   480

-295-

```
agcaactggt ttccggagct gagacactga atcttgttgc cgaaatcctt aaatctatag    540
acagaatttc tgaagttaaa gacgaggagg aagactcttg aggacccctg ggtgttctca    600
gcatgaagct ccgtgtatac cctgaggtca ccaccgctcg atctaaatgt gcagttgtgt    660
ccttaaatat gcagtcttca cccagagtaa agtgttgatc gcaagagtcc agtgtcgtgc    720
cctcagccag ttcttggcca ccacaatggg agcagccctg ccgagttgt ctctgtggtt     780
tctatgcagc ccttcttggc gaaattcctg cgatcttata gattctaatg agctcttgga    840
agacattgtc ataaaagcca gtgattttaa gaaaaagagt ggttctggaa tcaatgtttt    900
ccagtcccat cccagaacat cagttgtaag ataagtacaa ttggttgtcc ttgatttcat    960
aagtagaaca aacactaaat gtgcctctga gatggccacc ccgggcaggg acctgtgcct   1020
tccgccgatg ctcagggctc cctctggctc ccgggtcact cttgtggccc cagtgggtgg   1080
tccctgcagt catggcctga gtgcgcaggg gccaccgcgt ggctgctgct gtcctcctcc   1140
ggggaccacg ggggaacaag gtcacacctt ccgtgctgtg aagctgtcca gatgtgcctc   1200
tttggctggg ggttttggtg gacgtttcaa gtggcatttt gtacaatgca ggttagaatt   1260
caggaatttc aagtatgtgc ccgggtntgt caggtcccag ttgcctttnt gacggcccccc  1320
ctcagaggga cggcgatgag cactaaatgc tttttgant attttcctat agattttttt    1380
taaaactttt ttttcctcct gttccaattg atagctttct tatttaataa attctgtagt   1440
tcacc                                                              1445
```

```
        <210> 563
        <211> 192
        <212> PRT
        <213> Homo Sapiens


        <400> 563
Pro Ala Gly Ser Pro Ser Ala Asp Phe Ala Val His Gly Glu Ser Leu
1               5                   10                  15
Gly Asp Arg His Leu Arg Thr Leu Gln Ile Ser Tyr Asp Ala Leu Lys
            20                  25                  30
Asp Glu Asn Ser Lys Leu Arg Arg Lys Leu Asn Glu Val Gln Ser Phe
        35                  40                  45
Ser Glu Ala Gln Thr Glu Met Val Arg Thr Leu Glu Arg Lys Leu Glu
    50                  55                  60
Ala Lys Met Ile Lys Glu Glu Ser Asp Tyr His Asp Leu Glu Ser Val
65                  70                  75                  80
Val Gln Gln Val Glu Gln Asn Leu Glu Leu Met Thr Lys Arg Ala Val
                85                  90                  95
Lys Ala Glu Asn His Val Val Lys Leu Lys Gln Glu Ile Ser Leu Leu
            100                 105                 110
Gln Ala Gln Val Ser Asn Phe Gln Arg Glu Asn Glu Ala Leu Arg Cys
        115                 120                 125
Gly Gln Gly Ala Ser Leu Thr Val Val Lys Gln Asn Ala Asp Val Ala
    130                 135                 140
Leu Gln Asn Leu Arg Val Val Met Asn Ser Ala Gln Ala Ser Ile Lys
145                 150                 155                 160
Gln Leu Val Ser Gly Ala Glu Thr Leu Asn Leu Val Ala Glu Ile Leu
                165                 170                 175
Lys Ser Ile Asp Arg Ile Ser Glu Val Lys Asp Glu Glu Glu Asp Ser
            180                 185                 190
```

```
        <210> 564
        <211> 1226
        <212> DNA
        <213> Homo Sapiens

        <400> 564
```

```
ctgggccgcg aggcgcggag cttgggagcg gagcccaggc cgtgccgcgc ggcgccatga       60
agggcaagga ggagaaggag ggcggcgcac ggctgggcgc tggcggcgga agccccgaga      120
agagcccgag cgcgcaggag ctcaaggagc agggcaatcg tctgttcgtg ggccgaaagt      180
acccggaggc ggcggcctgc tacggccgcg cgatcacccg gaacccgctg gtggccgtgt      240
attacaccaa ccgggccttg tgctacctga agatgcagca gcacgagcag gccctggccg      300
actgccggcg cgccctggag ctggacgggc agtctgtgaa ggcgcacttc ttcctggggc      360
agtgccagct ggagatggag agctatgatg aggccatcgc caatctgcag cgagcttaca      420
gcctggccaa ggagcagcgg ctgaacttcg gggacgacat ccccagcgct cttcgaatcg      480
cgaagaagaa gcgctggaac agcattgagg agcggcgcat ccaccaggag agcgagctgc      540
actcctacct ctccaggctc attccgcgcg agcgtgagag ggagctggaa gagtgccagc      600
gaaaccacga gggtgatgag gacgacagcc acgtccgggc ccagcaggcc tgcattgagg      660
ccaagcacga caagtacatg gcggacatgg acgagctttt ttctcaggtg gatgagaaga      720
ggaagaagcg agacatcccc gactacctgt gtggcaagat cagctttgag ctgatgcggg      780
agccgtgcat cacgcccagt ggcatcacct acgaccgcaa ggacatcgag gagcacctgc      840
agcgtgtggg tcattttgac ccggtgaccg ggagccccct gacccaggaa cagttcatcc      900
ccaacttggc tatgaaggag gttattgacg cattcatctc tgagaatggc tgggtggagg      960
actactgagg ttccctgccc tacctggcgt cctggtccag gggagccctg ggcagaagcc     1020
cccggccccT aaacatagtt tatgttttTg ccacccCga ccgcttcccc caagttctgc     1080
tgttggactc tggactgttt cccctctcag catcgctttt gctgggccgt gattgtcccc     1140
tttgtgggct ggaaaagcag gtgagggtgg gctgggctga ggccattgcc gccactatct     1200
gtgtaataaa atccgtgagc acgaaa                                          1226
```

```
        <210> 565
        <211> 303
        <212> PRT
        <213> Homo Sapiens


        <400> 565
Met Lys Gly Lys Glu Glu Lys Glu Gly Gly Ala Arg Leu Gly Ala Gly
1               5                   10                  15
Gly Gly Ser Pro Glu Lys Ser Pro Ser Ala Gln Glu Leu Lys Glu Gln
            20                  25                  30
Gly Asn Arg Leu Phe Val Gly Arg Lys Tyr Pro Glu Ala Ala Ala Cys
        35                  40                  45
Tyr Gly Arg Ala Ile Thr Arg Asn Pro Leu Val Ala Val Tyr Tyr Thr
    50                  55                  60
Asn Arg Ala Leu Cys Tyr Leu Lys Met Gln Gln His Glu Gln Ala Leu
65                  70                  75                  80
Ala Asp Cys Arg Arg Ala Leu Glu Leu Asp Gly Gln Ser Val Lys Ala
            85                  90                  95
His Phe Phe Leu Gly Gln Cys Gln Leu Glu Met Glu Ser Tyr Asp Glu
            100                 105                 110
Ala Ile Ala Asn Leu Gln Arg Ala Tyr Ser Leu Ala Lys Glu Gln Arg
        115                 120                 125
Leu Asn Phe Gly Asp Asp Ile Pro Ser Ala Leu Arg Ile Ala Lys Lys
    130                 135                 140
Lys Arg Trp Asn Ser Ile Glu Glu Arg Arg Ile His Gln Glu Ser Glu
145                 150                 155                 160
Leu His Ser Tyr Leu Ser Arg Leu Ile Ala Ala Glu Arg Glu Arg Glu
            165                 170                 175
Leu Glu Glu Cys Gln Arg Asn His Glu Gly Asp Glu Asp Asp Ser His
            180                 185                 190
Val Arg Ala Gln Gln Ala Cys Ile Glu Ala Lys His Asp Lys Tyr Met
        195                 200                 205
Ala Asp Met Asp Glu Leu Phe Ser Gln Val Asp Glu Lys Arg Lys Lys
```

```
           210                     215                    220
Arg Asp Ile Pro Asp Tyr Leu Cys Gly Lys Ile Ser Phe Glu Leu Met
225                     230                    235                    240
Arg Glu Pro Cys Ile Thr Pro Ser Gly Ile Thr Tyr Asp Arg Lys Asp
                    245                    250                    255
Ile Glu Glu His Leu Gln Arg Val Gly His Phe Asp Pro Val Thr Gly
                260                    265                    270
Ser Pro Leu Thr Gln Glu Gln Phe Ile Pro Asn Leu Ala Met Lys Glu
            275                    280                    285
Val Ile Asp Ala Phe Ile Ser Glu Asn Gly Trp Val Glu Asp Tyr
        290                    295                    300
```

```
        <210> 566
        <211> 1857
        <212> DNA
        <213> Homo Sapiens

        <400> 566
gtgaggggct cctttgggca ggggtagtgt ttggtgtccc tgtcttgcgt gatattgaca      60
aactgaagct ttcctgcacc actggactta aggaanagtg tactcgtagg cggacagctt     120
tagtggccgg ccggccgctc tcatcccccg taaggagcag agtcctttgt actgaccaag     180
atgagcaaca tctacatcca ggagcctccc acgaatggga aggttttatt gaaaactaca     240
gctggagata ttgacataga gttgtggtcc aaagaagctc ctaaagcttg cagaaatttt     300
atcccaactt tgtttggaag cttattatga caataccatt tttcatagag ttgtgcctgg     360
tttcatagtc caaggcggag atcctactgg cacagggagt ggtggagagt ctatctatgg     420
agcgccattc aaagatgaat ttcattcacg gttgcgtttt aatcggagag gactggttgc     480
catggcaaat gctggttctc atgataatgg cacccacttt ttcttcacac tgggtcgagc     540
agatgaactt aacaataagc ataccatctt tggaaaggtt acaggggata cagtatataa     600
catgttgcga ctgtcagaag tagacattga tgatgacgaa agaccacata atccacacaa     660
aataaaaagc tgtgaggttt tgtttaatcc ttttgatgac atcattccaa gggaaattaa     720
aaggctgaaa aaagagaaac cagaggagga agtaaagaaa ttgaaacccca aaggcacaaa     780
aaattttagt ttactttcat ttggagagga agctgaggaa gaagaagagg aagtaaatcg     840
agttagtcag agcatgaagg gcaaaagcaa aagtagtcat gacttgctta aggatgatcc     900
acatctcagt tctgttccag ttgtagaaag tgaaaaaggt gatgcaccag atttagttga     960
tgatggagaa gatgaaagtg cagagcatga tgaatatatt gatggtgatg aaaagaacct    1020
gatgagagaa agaattgcca aaaaattaaa aaaggacaca agtgcgaatg ttaaatcagc    1080
tggagaagga gaagtggaga agaaatcagt cagccgcagt gaagagctca gaaaagaagc    1140
aagacaatta aaacgggaac tcttagcagc aaaacaaaaa aaagtagaaa atgcagcaaa    1200
acaagcagaa aaaagaagtg aagaggaaga agcccctcca gatggtgctg ttgccgaata    1260
cagaagagaa aagcaaaagt atgaagcttt gaggaagcaa cagtcaaaga agggaacttc    1320
ccgggaagat cagacccttg cactgctgaa ccagtttaaa tctaaactca ctcaagcaat    1380
tgctgaaaca cctgaaaatg acattcctga aacagaagta gaagatgatg aaggatggat    1440
gtcacatgta cttcagtttg aggataaaag cagaaaagtg aaagatgcaa gcatgcaaga    1500
ctcagataca tttgaaatct atgatcctcg gaatccagtg aataaaagaa ggagggaaga    1560
aagcaaaaag ctgatgagag agaaaaaaga aagaagataa aatgagaata atgataacca    1620
gaacttgctg gaaatgtgcc tacaatggcc ttgtaacagc cattgttccc aacagcatca    1680
cttaggggtg tgaaaagaag tattttttgaa cctgttgtct ggttttgaaa aacaattatc    1740
ttgttttgca aattgtggaa tgatgtaagc aaatgctttt ggttactggt acatgtgttt    1800
tttcctagct gacctttat attgctaaat ctgaaataaa ataactttcc ttccaaa       1857

        <210> 567
        <211> 372
        <212> PRT
        <213> Homo Sapiens
```

-298-

```
      <400> 567
Met Ala Asn Ala Gly Ser His Asp Asn Gly Thr His Phe Phe Phe Thr
1               5                   10                  15
Leu Gly Arg Ala Asp Glu Leu Asn Asn Lys His Thr Ile Phe Gly Lys
            20                  25                  30
Val Thr Gly Asp Thr Val Tyr Asn Met Leu Arg Leu Ser Glu Val Asp
            35                  40                  45
Ile Asp Asp Asp Glu Arg Pro His Asn Pro His Lys Ile Lys Ser Cys
    50                  55                  60
Glu Val Leu Phe Asn Pro Phe Asp Asp Ile Ile Pro Arg Glu Ile Lys
65                  70                  75                  80
Arg Leu Lys Lys Glu Lys Pro Glu Glu Glu Val Lys Lys Leu Lys Pro
                85                  90                  95
Lys Gly Thr Lys Asn Phe Ser Leu Leu Ser Phe Gly Glu Glu Ala Glu
            100                 105                 110
Glu Glu Glu Glu Glu Val Asn Arg Val Ser Gln Ser Met Lys Gly Lys
            115                 120                 125
Ser Lys Ser Ser His Asp Leu Leu Lys Asp Asp Pro His Leu Ser Ser
    130                 135                 140
Val Pro Val Val Glu Ser Glu Lys Gly Asp Ala Pro Asp Leu Val Asp
145                 150                 155                 160
Asp Gly Glu Asp Glu Ser Ala Glu His Asp Glu Tyr Ile Asp Gly Asp
                165                 170                 175
Glu Lys Asn Leu Met Arg Glu Arg Ile Ala Lys Lys Leu Lys Lys Asp
            180                 185                 190
Thr Ser Ala Asn Val Lys Ser Ala Gly Glu Gly Glu Val Glu Lys Lys
            195                 200                 205
Ser Val Ser Arg Ser Glu Glu Leu Arg Lys Glu Ala Arg Gln Leu Lys
    210                 215                 220
Arg Glu Leu Leu Ala Ala Lys Gln Lys Lys Val Glu Asn Ala Ala Lys
225                 230                 235                 240
Gln Ala Glu Lys Arg Ser Glu Glu Glu Ala Pro Pro Asp Gly Ala
            245                 250                 255
Val Ala Glu Tyr Arg Arg Glu Lys Gln Lys Tyr Glu Ala Leu Arg Lys
            260                 265                 270
Gln Gln Ser Lys Lys Gly Thr Ser Arg Glu Asp Gln Thr Leu Ala Leu
    275                 280                 285
Leu Asn Gln Phe Lys Ser Lys Leu Thr Gln Ala Ile Ala Glu Thr Pro
    290                 295                 300
Glu Asn Asp Ile Pro Glu Thr Glu Val Glu Asp Asp Glu Gly Trp Met
305                 310                 315                 320
Ser His Val Leu Gln Phe Glu Asp Lys Ser Arg Lys Val Lys Asp Ala
            325                 330                 335
Ser Met Gln Asp Ser Asp Thr Phe Glu Ile Tyr Asp Pro Arg Asn Pro
            340                 345                 350
Val Asn Lys Arg Arg Arg Glu Glu Ser Lys Lys Leu Met Arg Glu Lys
    355                 360                 365
Lys Glu Arg Arg
    370

      <210> 568
      <211> 1537
      <212> DNA
      <213> Homo Sapiens
```

```
        <400> 568
gccgcgcgcc gatcggtcgt taccgcgagg cgctggtggc cttcaggctg gacggcgcgg      60
gtcagccctg gttcgccggc ttctgggtct ttgaacagcc gcgatgtcga tcttcacccc     120
caccaaccag atccgcctaa ccaatgtggc cgtggtacgg atgaagcgtg ccgggaagcg     180
cttcgaaatc gcctgctaca aaacaaggt cgtcggctgg cggagcggcg tggaaaaaga      240
cctcgatgaa gttctgcaga cccactcagt gtttgtaaat gtttctaaag gtcaggttgc     300
caaaaaggaa gatctcatca gtgcgtttgg aacagatgac caaactgaaa tctgtaagca     360
gattttgact aaaggagaag ttcaagtatc agataaagaa agacacacac aactggagca     420
gatgtttagg gacattgcaa ctattgtggc agacaaatgt gtgaatcctg aaacaaagag     480
accatacacc gtgatcctta ttgagagagc catgaaggac atccactatt cggtgaaaac     540
caacaagagt acaaaacagc aggctttgga agtgataaag cagttaaaag agaaaatgaa     600
gatagaacgt gctcacatga agcttcggtt catccttcca gtcaatgaag caagaactg      660
aaagaaaagc tcaagccact gatcaaggtc atagaaagtg aagattatgg ccaacagtta     720
gaaatcgtat gtctgattga cccgggctgc ttccgagaaa ttgatgagct aataaaaaag     780
gaaactaaag gcaaaggttc tttggaagta ctcaatctga aagatgtaga agaaggagat     840
gagaaatttg aatgacaccc atcaatctct tcacctctaa aacactaaag tgtttccgtt     900
tccgacggca ctgtttcatg tctgtggtct gccaaatact tgcttaaact atttgacatt     960
ttctatcttt gtgttaacag tggacacagc aaggctttcc tacataagta taataatgtg    1020
ggaatgattt ggtttttaatt ataaactggg gtctaaatcc taaagcaaaa ttgaaactcc    1080
aagatgcaaa gtccagagtg gcattttgct actctgtctc atgccttgat agctttccaa    1140
aatgaaagtt acttgangca gctcttgtgg gtgaaaagtt atttgtacag tagagtaaga    1200
ttattagggg tatgtctata caacaaagg ggggtctttt cctaaaaaag aaaacatatg     1260
atgcttcatt tctacttaat ggaacttgtg ttctgagggt cattatggta tcgtaatgta    1320
aagcttggat gatgttcctg attatttgag gaacagatat aggaaaattg tgccggaatt    1380
acctttcatt gaacatgctg ccataaatta ggttattttt ggttaaaaaa taaaagtcaa    1440
ttattttaa tttttaaagt ttataatata tattaatata ggtaaaattg tatgtaatca    1500
ataaaaccaa ttttatgttt attaaactta aaaaaaa                             1537
```

```
        <210> 569
        <211> 210
        <212> PRT
        <213> Homo Sapiens
```

```
        <400> 569
Ala Ala Arg Arg Ser Val Val Thr Ala Arg Arg Trp Trp Pro Ser Gly
1               5                  10                  15
Trp Thr Ala Arg Val Ser Pro Gly Ser Pro Ala Ser Gly Ser Leu Asn
            20                  25                  30
Ser Arg Asp Val Asp Leu His Pro His Gln Pro Asp Pro Pro Asn Gln
        35                  40                  45
Cys Gly Arg Gly Thr Asp Glu Ala Cys Arg Glu Ala Leu Arg Asn Arg
    50                  55                  60
Leu Leu Gln Lys Gln Val Val Gly Trp Arg Ser Gly Val Glu Lys Asp
65                  70                  75                  80
Leu Asp Glu Val Leu Gln Thr His Ser Val Phe Val Asn Val Ser Lys
                85                  90                  95
Gly Gln Val Ala Lys Lys Glu Asp Leu Ile Ser Ala Phe Gly Thr Asp
            100                 105                 110
Asp Gln Thr Glu Ile Cys Lys Gln Ile Leu Thr Lys Gly Glu Val Gln
        115                 120                 125
Val Ser Asp Lys Glu Arg His Thr Gln Leu Glu Gln Met Phe Arg Asp
    130                 135                 140
Ile Ala Thr Ile Val Ala Asp Lys Cys Val Asn Pro Glu Thr Lys Arg
145                 150                 155                 160
Pro Tyr Thr Val Ile Leu Ile Glu Arg Ala Met Lys Asp Ile His Tyr
```

```
                  165                  170                  175
Ser Val Lys Thr Asn Lys Ser Thr Lys Gln Gln Ala Leu Glu Val Ile
            180                  185                  190
Lys Gln Leu Lys Glu Lys Met Lys Ile Glu Arg Ala His Met Lys Leu
        195                  200                  205·
Arg Phe
    210
```

```
        <210> 570
        <211> 1211
        <212> DNA
        <213> Homo Sapiens

        <400> 570
accatctttg gaaaggttac aggggtatac agtatataac atgttgcgac tgtcagaagt      60
agacattgat gatgacgaaa gaccacataa tccacacaaa ataaaaagct gtgaggtttt     120
gtttaatcct tttgatgaca tcattccaag ggaaattaaa aggctgaaaa aagagaaacc     180
agaggaggaa gtaaagaaat tgaaacccaa aggcacaaaa aattttagtt tactttcatt     240
tggagaggaa gctgaggaag aagaggagga agtaaatcga gttagtcaga gcatgaaggg     300
caaaagcaaa agtagtcatg acttgcttaa ggatgatcca catctcagtt ctgttccagt     360
tgtagaaagt gaaaaaggtg atgcagcaga tttagttgat gatggagaag atgaaagtgc     420
agagcatgat gaatatattg atggtgatga aaagaacctg atgagagaaa gaattgccaa     480
aaaattaaaa aaggacacaa gtgcgaatgt taaatcagct ggagaaggag aagtggagaa     540
gaaatcagtc agccgcagtg aagagctcag aaaagaagca agacaattaa aacgggaact     600
cttagcagca gaacaaaaaa aagtagaaaa tgcagcaaaa caagcagaaa aagaagtga     660
agaggaagaa gcccctccag atggtgctgt tgccgaatac agaagagaaa agcaaaagta     720
tgaagctctg aggaagcaac agtcaaagaa gggaacttcc cgggaagatc agacccttgc     780
actgctgaac cagtttaaat ctaaactcac tcaagcaatt gctgaaacgc ctgaaaatga     840
cattcctgaa acagaagtag aagatgatga aggatggatg tcacatgtac ttcagtttga     900
ggataaaagc agaaaagtga aagatgcaag catgcaagac tcagatacat ttgaaatcta     960
tgatcctcgg aatccagtga ataaaagaag gagggaagaa agcaaaaagc tgatgagaga    1020
gaaaaaagaa agaagataaa atgagaataa tgataaccag aacttgctgg aaatgtgcct    1080
acaatggcct tgtaacagcc attgttccca acagcatcac ttaggggtgt gaaaagaagt    1140
attttgaac ctgttgtctg gttttgaaaa acaattatct tgttttgcaa attgtggaat    1200
gatgtaagca a                                                        1211
```

```
        <210> 571
        <211> 354
        <212> PRT
        <213> Homo Sapiens

        <400> 571
Pro Ser Leu Glu Arg Leu Gln Gly Tyr Thr Val Tyr Asn Met Leu Arg
1               5                   10                  15
Leu Ser Glu Val Asp Ile Asp Asp Glu Arg Pro His Asn Pro His
            20                  25                  30
Lys Ile Lys Ser Cys Glu Val Leu Phe Asn Pro Phe Asp Asp Ile Ile
        35                  40                  45
Pro Arg Glu Ile Lys Arg Leu Lys Lys Glu Lys Pro Glu Glu Glu Val
    50                  55                  60
Lys Lys Leu Lys Pro Lys Gly Thr Lys Asn Phe Ser Leu Leu Ser Phe
65                  70                  75                  80
Gly Glu Glu Ala Glu Glu Glu Glu Glu Val Asn Arg Val Ser Gln
            85                  90                  95
Ser Met Lys Gly Lys Ser Lys Ser Ser His Asp Leu Leu Lys Asp Asp
```

```
                    100                    105                    110
Pro His Leu Ser Ser Val Pro Val Val Glu Ser Glu Lys Gly Asp Ala
          115                    120                    125
Ala Asp Leu Val Asp Asp Gly Glu Asp Glu Ser Ala Glu His Asp Glu
          130                    135                    140
Tyr Ile Asp Gly Asp Glu Lys Asn Leu Met Arg Glu Arg Ile Ala Lys
145                    150                    155                    160
Lys Leu Lys Lys Asp Thr Ser Ala Asn Val Lys Ser Ala Gly Glu Gly
                    165                    170                    175
Glu Val Glu Lys Lys Ser Val Ser Arg Ser Glu Glu Leu Arg Lys Glu
                    180                    185                    190
Ala Arg Gln Leu Lys Arg Glu Leu Leu Ala Ala Glu Gln Lys Lys Val
          195                    200                    205
Glu Asn Ala Ala Lys Gln Ala Glu Lys Arg Ser Glu Glu Glu Glu Ala
          210                    215                    220
Pro Pro Asp Gly Ala Val Ala Glu Tyr Arg Arg Glu Lys Gln Lys Tyr
225                    230                    235                    240
Glu Ala Leu Arg Lys Gln Gln Ser Lys Lys Gly Thr Ser Arg Glu Asp
                    245                    250                    255
Gln Thr Leu Ala Leu Leu Asn Gln Phe Lys Ser Lys Leu Thr Gln Ala
          260                    265                    270
Ile Ala Glu Thr Pro Glu Asn Asp Ile Pro Glu Thr Glu Val Glu Asp
          275                    280                    285
Asp Glu Gly Trp Met Ser His Val Leu Gln Phe Glu Asp Lys Ser Arg
          290                    295                    300
Lys Val Lys Asp Ala Ser Met Gln Asp Ser Asp Thr Phe Glu Ile Tyr
305                    310                    315                    320
Asp Pro Arg Asn Pro Val Asn Lys Arg Arg Arg Glu Glu Ser Lys Lys
                    325                    330                    335
Leu Met Arg Glu Lys Lys Glu Arg Arg Ile Leu Pro Val Asn Glu Gly
          340                    345                    350
Lys Asn
```

```
        <210> 572
        <211> 604
        <212> DNA
        <213> Homo Sapiens

        <400> 572
ccttcggcaa aaaattttgg tcccaacttt ttgttccatt ccaaaagggc ttaccttcat    60
tccctttagc aacagggccc ccaagaagct cccgttcatt caccccttacc ttggcccca   120
ggttggaccc ccaaaggctc ccttacccca aagtgggtgg ttgaataaat cttctcagtt   180
ccctggctcc caaggcccat tgaagaagat tgtacaaggc gtgcctcaag tacccccgagt  240
ggaaacagaa gcacctgcct cacttcaagc cgtggctgca cccggagcag agcccgttgc   300
cgagcctggc gctgtcggag ctgtcggtgc agcatgcgga ctcactggag aacatcgacg   360
agagcgcggt ggccgagagc agagaggagc ggatgggcgg cgcgggcggc gagggcagcg   420
acgacgacac cttcacctga gccgcaccg cttcagggac ggagacagga ccgggcgagc     480
cctggggcgg cggccgctcc tgcactttct cccctccccc acccggcacc tggtggcacc   540
gggccaggcc caggcgggtg ctgcagcctg ctggacaga gcccaataaa cggatcccac    600
agcc                                                                604

        <210> 573
        <211> 195
        <212> PRT
```

<213> Homo Sapiens

<400> 573

```
Leu Arg Gln Lys Ile Leu Val Pro Thr Phe Cys Ser Ile Pro Lys Gly
1               5                   10                  15
Leu Thr Phe Ile Pro Phe Ser Asn Arg Ala Pro Lys Lys Leu Pro Phe
            20                  25                  30
Ile His Pro Tyr Leu Gly Pro Gln Val Gly Pro Pro Lys Ala Pro Leu
        35                  40                  45
Pro Gln Ser Gly Trp Leu Asn Lys Ser Ser Gln Phe Pro Gly Ser Gln
    50                  55                  60
Gly Pro Leu Lys Lys Ile Val Gln Gly Val Pro Gln Val Pro Arg Val
65                  70                  75                  80
Glu Thr Glu Ala Pro Ala Ser Leu Gln Ala Val Ala Ala Pro Gly Ala
                85                  90                  95
Glu Pro Val Ala Glu Pro Gly Ala Val Gly Ala Val Gly Ala Ala Cys
            100                 105                 110
Gly Leu Thr Gly Glu His Arg Arg Glu Arg Gly Gly Arg Glu Gln Arg
        115                 120                 125
Gly Ala Asp Gly Arg Arg Gly Arg Arg Gly Gln Arg Arg Arg His Leu
    130                 135                 140
His Leu Ser Pro His Arg Phe Arg Asp Gly Asp Arg Thr Gly Arg Ala
145                 150                 155                 160
Leu Gly Arg Arg Pro Leu Leu His Phe Leu Pro Ser Pro Thr Arg His
                165                 170                 175
Leu Val Ala Pro Gly Gln Ala Gln Ala Gly Ala Ala Ala Trp Leu Asp
                180                 185                 190
Arg Ala Gln
        195
```

<210> 574
<211> 742
<212> DNA
<213> Homo Sapiens

<400> 574

```
cccaccaggg cccctcgat  gcagagacag aggtcggtgc tgaccgctgc acgtcgactg      60
cctaccagga gcagaggccc caggtggagc aagttggcaa agtcgctcct ctctccccag     120
ggctgccggc aatggggggg cctggccccg gccctgtga ggaccccgcg ggtgctgggg     180
gagcaggtgc aggggctcc gagcccctgg tgactgtcac cgtgcagtgc gccttcacag      240
tggccctgag ggcaggaaga ggagccgacc tgtccagcct gcgggcactg ctgggccaag     300
ccttccttca ccaggcccag cttgggcaat tcagttacct agccccaggt gaggacgggc     360
actgggtccc catccccgag gaggagtcgc tgcagagggc ctggcaggac gcagctgcct     420
gccccagggg gctgcagctg cagtgcaggg gagccggggg tcggccggtc ctttaccagg     480
tggtggccca gcacagatac tccgcccagg ggccagagga cctgggcttc cgacagggggg    540
acacggtgga cgtcctgtgt gaagtggacc aggcatggct ggagggccac tgtgacggcc     600
gcatcggcat cttccccaag tgcttcgtgg tccccgccgg ccctcggatg tcaggagccc     660
ccggccgcct gccccgatcc cagcagggag atcagcccta atgatgctgt gtccatgatg     720
cttttaataa aaacaacccc ca                                            742
```

<210> 575
<211> 232
<212> PRT
<213> Homo Sapiens

<400> 575

```
His Gln Gly Pro Leu Asp Ala Glu Thr Glu Val Gly Ala Asp Arg Cys
1               5                   10                  15
Thr Ser Thr Ala Tyr Gln Glu Gln Arg Pro Gln Val Glu Gln Val Gly
            20                  25                  30
Lys Val Ala Pro Leu Ser Pro Gly Leu Pro Ala Met Gly Gly Pro Gly
        35                  40                  45
Pro Gly Pro Cys Glu Asp Pro Ala Gly Ala Gly Gly Ala Gly Ala Gly
    50                  55                  60
Gly Ser Glu Pro Leu Val Thr Val Thr Val Gln Cys Ala Phe Thr Val
65                  70                  75                  80
Ala Leu Arg Ala Gly Arg Gly Ala Asp Leu Ser Ser Leu Arg Ala Leu
            85                  90                  95
Leu Gly Gln Ala Phe Leu His Gln Ala Gln Leu Gly Gln Phe Ser Tyr
            100                 105                 110
Leu Ala Pro Gly Glu Asp Gly His Trp Val Pro Ile Pro Glu Glu Glu
        115                 120                 125
Ser Leu Gln Arg Ala Trp Gln Asp Ala Ala Ala Cys Pro Arg Gly Leu
    130                 135                 140
Gln Leu Gln Cys Arg Gly Ala Gly Gly Arg Pro Val Leu Tyr Gln Val
145                 150                 155                 160
Val Ala Gln His Arg Tyr Ser Ala Gln Gly Pro Glu Asp Leu Gly Phe
                165                 170                 175
Arg Gln Gly Asp Thr Val Asp Val Leu Cys Glu Val Asp Gln Ala Trp
            180                 185                 190
Leu Glu Gly His Cys Asp Gly Arg Ile Gly Ile Phe Pro Lys Cys Phe
            195                 200                 205
Val Val Pro Ala Gly Pro Arg Met Ser Gly Ala Pro Gly Arg Leu Pro
    210                 215                 220
Arg Ser Gln Gln Gly Asp Gln Pro
225                 230
```

        <210> 576
        <211> 1087
        <212> DNA
        <213> Homo Sapiens

        <400> 576
```
aagatgatgc ctagtaaatt acagaagaac aaacagagac tgcgaaacga tcctctcaat      60
caaaataagg gtaaaccaga cttgaataca acattgccaa ttagacaaac agcatcaatt     120
ttcaaacaac cggtaaccaa agtcacaaat catcctagta ataaagtgaa atcagaccca     180
caacgaatga atgaacagcc acgtcagctt ttctgggaga agaggctaca aggacttagt     240
gcatcagatg taacagaaca aattataaaa accatggaac tacccaaagg tcttcaagga     300
gttggtccag gtagcaatga tgagaccctt ttatctgctg ttgccagtgc tttgcacaca     360
agctctgcgc caatcacagg gcaagtctcc gctgctgtgg aaaagaaccc tgctgtttgg     420
cttaacacat ctcaacccct ctgcaaagct tttattgtca cagatgaaga catcaggaaa     480
caggaagagc gagtacagca agtacgcaag aaattggaag aagcactgat ggcagacatc     540
ttgtcgcgag ctgctgatac agaagagatg gatattgaaa tggacagtgg agatgaagcc     600
taagaatatg atcaggtaac tttcgaccga ctttccccaa gagaaaattc ctagaaattg     660
aacaaaaatg tttccactgg cttttgcctg taagaaaaaa aatgtacccg agcacataga     720
gcttttaat agcactaacc aatgcctttt tagatgtatt tttgatgtat atatctatta     780
ttcaaaaaat catgtttatt ttgagtccta ggacttaaaa ttagtctttt gtaatatcaa     840
gcaggaccct aagatgaagc tgagcttttg atgccaggtg caatttactg gaaatgtagc     900
acttacgtaa aacatttgtt tcccccacag ttttaataag aacagatcag gaattctaaa     960
taaatttccc agttaaagat tattgtgact tcactgtata taaacatatt tttatacttt    1020
```

```
attgaaaggg gacacctgta cattcttcca tcgtcactgt aaagacaaat aaatgattat   1080
attcaca                                                             1087
```

```
        <210> 577
        <211> 200
        <212> PRT
        <213> Homo Sapiens


        <400> 577
Lys Met Met Pro Ser Lys Leu Gln Lys Asn Lys Gln Arg Leu Arg Asn
1               5                  10                  15
Asp Pro Leu Asn Gln Asn Lys Gly Lys Pro Asp Leu Asn Thr Thr Leu
            20                  25                  30
Pro Ile Arg Gln Thr Ala Ser Ile Phe Lys Gln Pro Val Thr Lys Val
        35                  40                  45
Thr Asn His Pro Ser Asn Lys Val Lys Ser Asp Pro Gln Arg Met Asn
    50                  55                  60
Glu Gln Pro Arg Gln Leu Phe Trp Glu Lys Arg Leu Gln Gly Leu Ser
65                  70                  75                  80
Ala Ser Asp Val Thr Glu Gln Ile Ile Lys Thr Met Glu Leu Pro Lys
                85                  90                  95
Gly Leu Gln Gly Val Gly Pro Gly Ser Asn Asp Glu Thr Leu Leu Ser
            100                 105                 110
Ala Val Ala Ser Ala Leu His Thr Ser Ser Ala Pro Ile Thr Gly Gln
        115                 120                 125
Val Ser Ala Ala Val Glu Lys Asn Pro Ala Val Trp Leu Asn Thr Ser
    130                 135                 140
Gln Pro Leu Cys Lys Ala Phe Ile Val Thr Asp Glu Asp Ile Arg Lys
145                 150                 155                 160
Gln Glu Glu Arg Val Gln Gln Val Arg Lys Lys Leu Glu Glu Ala Leu
                165                 170                 175
Met Ala Asp Ile Leu Ser Arg Ala Ala Asp Thr Glu Glu Met Asp Ile
            180                 185                 190
Glu Met Asp Ser Gly Asp Glu Ala
        195                 200


        <210> 578
        <211> 2569
        <212> DNA
        <213> Homo Sapiens


        <400> 578
aagagtaaaa gctactcttt cagagagaaa aataggagat tcatgtgaca aagatttgcc   60
tctgaaattt tgtgagttcc cacagaagac tataatgcct ggatttaaaa caactgtata  120
tgtttctcat ataaatgacc tttcagactt ttatgttcaa ctaatagaag atgaagctga  180
aattagtcat ctttcagaga gattaaacag tgttaaaaca aggcccgaat attatgtagg  240
tccacctttg caaagaggag atatgatatg tgctgttttc ccagaagata atttatggta  300
tcgtgctgtg atcaaggagc aacaacccaa tgaccttctc tctgtgcagt ttatagatta  360
tggcaatgtt tctgtggttc atactaacaa aataggtagg cttgaccttg ttaatgcaat  420
attgccgggg ttgtgcattc attgctcctt gcagggattt gaggttcctg acaataaaaa  480
ttctaagaaa atgatgcatt acttttccca acggaccagc gaggctgcaa taagatgtga  540
atttgttaaa tttcaagaca gatgggaagt tattcttgct gatgaacatg ggatcatagc  600
agatgatatg attagcaggt atgctctcag tgaaaaatct caagtagaac tttctaccca  660
agtaattaaa agtgccagtt caaagtctgt taacaaatca gacattgaca cttcagtatt  720
tcttaactgg tataatccag aaaaaaaaat gataagagct tatgccactg tgatagatgg  780
```

```
acctgagtac ttttggtgtc agtttgctga tacggagaaa cttcagtgtt tagaagtaga    840
agtacagact gctggagaac aggtagcaga caggagaaat tgtatcccat gtccttatat    900
tggagatcct tgtatagtaa gatacagaga agatggacat tattataggg cacttatcac    960
taatatttgt gaagattatc ttgtatctgt caggcttgtg gactttggaa acattgaaga   1020
ctgtgtggac ccaaaagcac tctgggccat tccttctgaa cttctgtcgg ttcccatgca   1080
agccttttcca tgttgcctct cagggtttaa catttcagaa ggattatgtt ctcaagaggg   1140
aaatgactat ttctatgaaa taataacaga agatgtgttg gaaataacaa tactagaaat   1200
cagaagggat gtttgtgata tcccttttagc aattgttgac ttgaaaagca aaggtaaaag   1260
tattaatgag aaaatggaga aatattctaa gactggtatt aaaagtgctc ttccctatga   1320
aaatattgac tcagagataa agcagactct tgggtcctac aatcttgatg taggacttaa   1380
gaaattaagt aataaagctg tacaaaataa aatatatatg gaacaacaga cagatgagct   1440
tgctgaaata actgaaaaag atgtaaacat tattggaacc aaaccaagta acttccgtga   1500
ccctaaaact gataacattt gtgaagggtt tgaaaacccc tgcaaagata aaattgatac   1560
tgaggaactg gaaggtgaat tagagtgcca tctggttgac aaagcagagt ttgatgataa   1620
atacctgatt acaggattta acacattact accacatgct aatgaaacaa aggagatact   1680
agaactgaat tcacttgagg tgccgctttc tcctgatgat gaatcaaaag aattcttaga   1740
actggaatct attgagttac agaattctct ggtggtggat gaagaaaaag gggagctaag   1800
cccggtgcca ccgaatgtgc cactctccca agagtgtgtc acaaaaggcg ccatggagct   1860
atttacactg cagcttcctc tcagctgtga agctgagaaa cagccagaac tagaactacc   1920
tacagcccag ctgcctttag atgacaagat ggatcctttg tctttaggag ttagtcagaa   1980
agcacaggaa tccatgtgta ctgaggacat gagaaagtca agttgtgtag aatcttttga   2040
tgaccagcgc aggatgtcat tgcatctaca tggagcagat tgtgatccta aaacacagaa   2100
tgaaatgaat atatgtgaag aagaatttgt agagtataaa aacagggatg ccatttcggc   2160
attgatgcct ttttctctga ggaagaaagc agtgatggaa gcaagcacaa taatggttta   2220
ccagatcata tttcagntca attacagaac acctacactn tgaaagcctt tactgttgga   2280
tctaaatgtg ttgtgtggtc aagtntaaga aacanatggt ctaaatgtga gattttagaa   2340
acagctgaag aaggnacaag ggttttgaac ctttcaaatg gtatggagga gatagtgaac   2400
cctgagaatg tctggaatgn nanacccaaa ttggataaga gtccacctga gaaaaggggt   2460
ttggaggtga tggagattta accgtggatn tatagctgtg gccaatcagt cagaagctgc   2520
ccntgaacaa gtggcatctt acgcagacca acagagtatt tgagaaaat               2569
```

      <210> 579
      <211> 752
      <212> PRT
      <213> Homo Sapiens

      <400> 579
Arg Val Lys Ala Thr Leu Ser Glu Arg Lys Ile Gly Asp Ser Cys Asp
 1   5   10   15
Lys Asp Leu Pro Leu Lys Phe Cys Glu Phe Pro Gln Lys Thr Ile Met
            20   25   30
Pro Gly Phe Lys Thr Thr Val Tyr Val Ser His Ile Asn Asp Leu Ser
        35   40   45
Asp Phe Tyr Val Gln Leu Ile Glu Asp Glu Ala Glu Ile Ser His Leu
    50   55   60
Ser Glu Arg Leu Asn Ser Val Lys Thr Arg Pro Glu Tyr Tyr Val Gly
65   70   75   80
Pro Pro Leu Gln Arg Gly Asp Met Ile Cys Ala Val Phe Pro Glu Asp
                85   90   95
Asn Leu Trp Tyr Arg Ala Val Ile Lys Glu Gln Gln Pro Asn Asp Leu
            100   105   110
Leu Ser Val Gln Phe Ile Asp Tyr Gly Asn Val Ser Val Val His Thr
        115   120   125
Asn Lys Ile Gly Arg Leu Asp Leu Val Asn Ala Ile Leu Pro Gly Leu
    130   135   140

```
Cys Ile His Cys Ser Leu Gln Gly Phe Glu Val Pro Asp Asn Lys Asn
145                 150                 155                 160
Ser Lys Lys Met Met His Tyr Phe Ser Gln Arg Thr Ser Glu Ala Ala
                165                 170                 175
Ile Arg Cys Glu Phe Val Lys Phe Gln Asp Arg Trp Glu Val Ile Leu
            180                 185                 190
Ala Asp Glu His Gly Ile Ile Ala Asp Asp Met Ile Ser Arg Tyr Ala
        195                 200                 205
Leu Ser Glu Lys Ser Gln Val Glu Leu Ser Thr Gln Val Ile Lys Ser
    210                 215                 220
Ala Ser Ser Lys Ser Val Asn Lys Ser Asp Ile Asp Thr Ser Val Phe
225                 230                 235                 240
Leu Asn Trp Tyr Asn Pro Glu Lys Lys Met Ile Arg Ala Tyr Ala Thr
                245                 250                 255
Val Ile Asp Gly Pro Glu Tyr Phe Trp Cys Gln Phe Ala Asp Thr Glu
            260                 265                 270
Lys Leu Gln Cys Leu Glu Val Glu Val Gln Thr Ala Gly Glu Gln Val
        275                 280                 285
Ala Asp Arg Arg Asn Cys Ile Pro Cys Pro Tyr Ile Gly Asp Pro Cys
    290                 295                 300
Ile Val Arg Tyr Arg Glu Asp Gly His Tyr Tyr Arg Ala Leu Ile Thr
305                 310                 315                 320
Asn Ile Cys Glu Asp Tyr Leu Val Ser Val Arg Leu Val Asp Phe Gly
            325                 330                 335
Asn Ile Glu Asp Cys Val Asp Pro Lys Ala Leu Trp Ala Ile Pro Ser
            340                 345                 350
Glu Leu Leu Ser Val Pro Met Gln Ala Phe Pro Cys Cys Leu Ser Gly
    355                 360                 365
Phe Asn Ile Ser Glu Gly Leu Cys Ser Gln Glu Gly Asn Asp Tyr Phe
    370                 375                 380
Tyr Glu Ile Ile Thr Glu Asp Val Leu Glu Ile Thr Ile Leu Glu Ile
385                 390                 395                 400
Arg Arg Asp Val Cys Asp Ile Pro Leu Ala Ile Val Asp Leu Lys Ser
            405                 410                 415
Lys Gly Lys Ser Ile Asn Glu Lys Met Glu Lys Tyr Ser Lys Thr Gly
            420                 425                 430
Ile Lys Ser Ala Leu Pro Tyr Glu Asn Ile Asp Ser Glu Ile Lys Gln
        435                 440                 445
Thr Leu Gly Ser Tyr Asn Leu Asp Val Gly Leu Lys Lys Leu Ser Asn
    450                 455                 460
Lys Ala Val Gln Asn Lys Ile Tyr Met Glu Gln Gln Thr Asp Glu Leu
465                 470                 475                 480
Ala Glu Ile Thr Glu Lys Asp Val Asn Ile Ile Gly Thr Lys Pro Ser
            485                 490                 495
Asn Phe Arg Asp Pro Lys Thr Asp Asn Ile Cys Glu Gly Phe Glu Asn
        500                 505                 510
Pro Cys Lys Asp Lys Ile Asp Thr Glu Glu Leu Glu Gly Glu Leu Glu
    515                 520                 525
Cys His Leu Val Asp Lys Ala Glu Phe Asp Asp Lys Tyr Leu Ile Thr
    530                 535                 540
Gly Phe Asn Thr Leu Leu Pro His Ala Asn Glu Thr Lys Glu Ile Leu
545                 550                 555                 560
Glu Leu Asn Ser Leu Glu Val Pro Leu Ser Pro Asp Asp Glu Ser Lys
                565                 570                 575
Glu Phe Leu Glu Leu Glu Ser Ile Glu Leu Gln Asn Ser Leu Val Val
```

-307-

```
              580                      585                      590
Asp Glu Glu Lys Gly Glu Leu Ser Pro Val Pro Pro Asn Val Pro Leu
          595                      600                      605
Ser Gln Glu Cys Val Thr Lys Gly Ala Met Glu Leu Phe Thr Leu Gln
          610                      615                      620
Leu Pro Leu Ser Cys Glu Ala Glu Lys Gln Pro Glu Leu Glu Leu Pro
625                      630                      635                      640
Thr Ala Gln Leu Pro Leu Asp Asp Lys Met Asp Pro Leu Ser Leu Gly
              645                      650                      655
Val Ser Gln Lys Ala Gln Glu Ser Met Cys Thr Glu Asp Met Arg Lys
          660                      665                      670
Ser Ser Cys Val Glu Ser Phe Asp Asp Gln Arg Arg Met Ser Leu His
          675                      680                      685
Leu His Gly Ala Asp Cys Asp Pro Lys Thr Gln Asn Glu Met Asn Ile
          690                      695                      700
Cys Glu Glu Glu Phe Val Glu Tyr Lys Asn Arg Asp Ala Ile Ser Ala
705                      710                      715                      720
Leu Met Pro Phe Ser Leu Arg Lys Lys Ala Val Met Glu Ala Ser Thr
              725                      730                      735
Ile Met Val Tyr Gln Ile Ile Phe Gln Asn Tyr Arg Thr Pro Thr Leu
              740                      745                      750


        <210> 580
        <211> 2077
        <212> DNA
        <213> Homo Sapiens

        <400> 580
        ctgttgattt tttggagaaa tatgggagaa acagtggaat atttttatga catttttagg       60
        aaatcacctg gcttggttgg tagtcccaca ctgactttcc ttatgataat tctacagatg      120
        gaggtgactc gagcagtgat gaggataaag aataacatga aactcctgtg gaagtagaac      180
        tcatgactca ggttgaccaa gaggatatca ctcttcagag tggcagagat gaactaaatg      240
        aggagctcat tcaggaagaa agctctgaag acgaaggaga atatgaagag gttagaaaag      300
        atcaggattc tgttggtgaa atgaaggatg aaggggaaga gacttaaatt atcctgatac      360
        taccattgac ttgtctcacc ttcaacccca aaggtccatc cagaaattgg cttcaaaaga      420
        ggaatcttct aattctagtg acagtaaatc acagagccgg agacatttgt cagccaagga      480
        aagaagggaa atgaaaaaga aaaaacttcc aagtgactca ggagatttag aagcgttaga      540
        gggaaaggat aaagaaaaag aaagtactgt acacattgaa actcatcaga acacaagcaa      600
        aaatgttgcg gctgtgcagc caatgaaacg aggacaaaag agtaaaatga aaaaaatgaa      660
        agaaaaatac aaagaccagg atgaagaaga ccgtgaactt atcatgaagt tgctggggtc      720
        tgcaggttca aacaaagaag aaaaagggaa gaaggggaag aaaggaaaaa caaaggacga      780
        acctgtgaag aaacagcccc agaaacctag aggtggacag agggtctctg acaacattaa      840
        gaaagaaact ccgttccttg aggttataac tcatgagtta caagactttg ctgtagatga      900
        tccacatgat gacaaggaag agcaagatct ggatcaacag ggaaatgagg aaaacctatt      960
        tgattctttg acaggccagc cacatcctga agatgtacta ctgtttgcca ttccaatatg     1020
        tgccccttac accaccatga caaactacaa atataaagtg aaacttactc ctggagtgca     1080
        gaaaaaggga aaagctgcaa aaacagcctt gaatagtttc atgcattcca agaagcaac      1140
        agcaagagaa aaagacttat tccgcagcgt aaaggacaca gatttatcaa gaaacattcc     1200
        tggcaaagtg aaaagtgtct gcacccaatc ttctgaacgt aaaaaggaaa tagctgaaat     1260
        gaaattctaa aatatttgag aagagccaat tttatagcct tttggaagtt caaagatgaa     1320
        agcaccatgt atcaggattt ccgcattata aaaatgaact aaacattgcc ttgctatatt     1380
        caccaaaagg acttaattct tgtttttttc ccagttttat atagaggaaa cactgtctat     1440
        gataggattt ccaaaagtat ttgtggacag ttaaatgcta attatataca tctgtagtta     1500
        ttctacattt tcttgaaatt tgggaggtta ataccaagta ttcatttcat gatgtaaaga     1560
        aactgaacag tgaagtggct tgattgctta aactattgac ttggtaagtc tactgtatat     1620
```

```
aacatctaat atatatatta caggccaaat gaactaaaca ttgccttgct atattcacca    1680
aaaggactta attcttgttt ttttcccagt tttatataga ggaaacacta tgataggatt    1740
tcctaaagta tttgtggaca gttaaatgct aattatatac atctgtagtt attctacatt    1800
ttcttgaaat ttgagaggtt aataccaagt attcatttca tgatgtaaag aaactgaaca    1860
gtgaagtggc ttgattgctt aaactattga cttggtaagt ctactgtata taacatctaa    1920
tatatatata ttataggcca gctacaaggg gtttaaatat ttaggattgt gtcttgaaaa    1980
ctaagtattg gagtggattt tcttctgctt tcattgatac ttgtcagaaa aaaatattag    2040
accaaaatgt aaaatataag taataattct catgaaa                             2077
```

```
      <210> 581
      <211> 312
      <212> PRT
      <213> Homo Sapiens


      <400> 581
Arg Gly Arg Asp Leu Asn Tyr Pro Asp Thr Thr Ile Asp Leu Ser His
1               5                  10                  15
Leu Gln Pro Gln Arg Ser Ile Gln Lys Leu Ala Ser Lys Glu Glu Ser
            20                  25                  30
Ser Asn Ser Ser Asp Ser Lys Ser Gln Ser Arg Arg His Leu Ser Ala
            35                  40                  45
Lys Glu Arg Arg Glu Met Lys Lys Lys Lys Leu Pro Ser Asp Ser Gly
        50                  55                  60
Asp Leu Glu Ala Leu Glu Gly Lys Asp Lys Glu Lys Glu Ser Thr Val
65                  70                  75                  80
His Ile Glu Thr His Gln Asn Thr Ser Lys Asn Val Ala Ala Val Gln
                85                  90                  95
Pro Met Lys Arg Gly Gln Lys Ser Lys Met Lys Lys Met Lys Glu Lys
            100                 105                 110
Tyr Lys Asp Gln Asp Glu Glu Asp Arg Glu Leu Ile Met Lys Leu Leu
            115                 120                 125
Gly Ser Ala Gly Ser Asn Lys Glu Glu Lys Gly Lys Lys Gly Lys Lys
        130                 135                 140
Gly Lys Thr Lys Asp Glu Pro Val Lys Lys Gln Pro Gln Lys Pro Arg
145                 150                 155                 160
Gly Gly Gln Arg Val Ser Asp Asn Ile Lys Lys Glu Thr Pro Phe Leu
                165                 170                 175
Glu Val Ile Thr His Glu Leu Gln Asp Phe Ala Val Asp Asp Pro His
            180                 185                 190
Asp Asp Lys Glu Glu Gln Asp Leu Asp Gln Gln Gly Asn Glu Glu Asn
            195                 200                 205
Leu Phe Asp Ser Leu Thr Gly Gln Pro His Pro Glu Asp Val Leu Leu
        210                 215                 220
Phe Ala Ile Pro Ile Cys Ala Pro Tyr Thr Thr Met Thr Asn Tyr Lys
225                 230                 235                 240
Tyr Lys Val Lys Leu Thr Pro Gly Val Gln Lys Lys Gly Lys Ala Ala
                245                 250                 255
Lys Thr Ala Leu Asn Ser Phe Met His Ser Lys Glu Ala Thr Ala Arg
            260                 265                 270
Glu Lys Asp Leu Phe Arg Ser Val Lys Asp Thr Asp Leu Ser Arg Asn
            275                 280                 285
Ile Pro Gly Lys Val Lys Ser Val Cys Thr Gln Ser Ser Glu Arg Lys
        290                 295                 300
Lys Glu Ile Ala Glu Met Lys Phe
305                 310
```

```
<210> 582
<211> 3309
<212> DNA
<213> Homo Sapiens

<400> 582
cgcagaccga gaccccgaggc ggaggcggac cgcgagccgg ccatgtcggt ggtgggggttg      60
gacgtgggct cgcagagctg ctacatcgcg gtagcccggg ccgggggcat cgagaccatc      120
gccaatgagt tcagcgaccg gtgcacccccg tcagtcatat catttggatc aaaaaaataga     180
acaatcggag ttgcagccaa aaatcagcaa atcactcatg caaacaatac ggtgtctaac      240
ttcaaaagat ttcatggccg agcattcaat gacccccttca ttcaaaagga gaaggaaaac    300
ttgagttacg atttggttcc attgaaaaat ggtggagttg gaataaaggt aatgtacatg      360
ggtgaagaac atctatttag tgtggagcag ataacagcca tgttgttgac taagctgaag      420
gaaactgctg aaaacagcct caagaaacca gtaacagatt gtgttatttc agtcccctcc      480
ttctttacag atgctgagag gcgatctgtg ttagatgctg cacagattgt tggcctaaac      540
tgtttaagac ttatgaatga catgacagct gttgctttga attacggaat ttataagcag      600
gatctcccaa gcctggatga gaaacctcgg atagtggttt ttgttgatat gggacattca      660
gcttttcaag tgtctgcttg tgctttttaac aagggaaaat tgaaggtact gggaacagct      720
tttgatcctt tcttaggagg aaaaaaacttc gatgaaaagt tagtggaaca tttttgtgca     780
gaatttaaaa ctaagtacaa gttggatgca aaatccaaaa tacgagcact cctacgtctg      840
tatcaggaat gtgaaaaact gaaaaagcta atgagctcta acagcacaga ccttccactg      900
aatatcgaat gctttatgaa tgataaagat gtttccggaa agatgaacag gtcacaattt      960
gaagaactct gtgctgaact tctgcaaaag atagaagtac cctttattc actgttggaa       1020
caaactcatc tcaaagtaga agatgtgagt gcagttgaga ttgttggagg cgctacacga      1080
attccagctg tgaaggaaag aattgccaaa ttctttggaa aagatattag cacaacactc      1140
aatgcagatg aagcagtagc cagaggatgt gcattacagt gtgcaatact ttccccggca     1200
tttaaagtta gagaattttt cgtcacagat gcagttcctt ttccaatatc tctgatctgg      1260
aaccatgatt cagaagatac tgaaggtgtt catgaagtct ttagtcgaaa ccatgctgct     1320
cctttctcca aagttctcac ctttctgaga agggggcctt ttgagctaga agctttctat       1380
tctgatcccc aaggagttcc atatccagaa gcaaaaatag gccgcttgt agttcagaat       1440
gtttctgcac agaaagatgg agaaaaatct agagtaaaag tcaaagtgcg agtcaacacc      1500
catggcattt tcaccatctc tacggcatct atggtggaga aagtcccaac tgaggagaat     1560
gaaatgtctt ctgaagctga catggagtgt ctgaatcaga gaccaccaga aaacccagac     1620
actgataaaa atgtccagca agacaacagt gaagctggaa cacagcccca ggtacaaact     1680
gatgctcaac aaacctcaca gtctccccct tcacctgaac ttacctcaga agaaacaaaa     1740
atcccagatg ctgacaaagc aaatgaaaaa aaagttgacc agcctccaga agctaaaaag     1800
cccaaaataa aggtggtgaa tgttgagctg cctattgaag ccaacttggt ctggcagtta     1860
gggaaagacc ttcttaacat gtatattgag acagagggta agatgataat gcaagataaa      1920
ttggaaaaag aaaggaatga tgctaaaaat gcagttgagg aatatgtgta tgagttcaga      1980
gacaagctgt gtggaccata tgaaaaattt atatgtgagc aggatcatca aaatttttttg     2040
agactcctca cagaaactga agactggctg tatgaagaag gagaggacca agctaaacaa     2100
gcatatgttg acaagttgga agaattaatg aaaaattggca ctccagttaa agttcggttt     2160
caggaagctg aagaacggcc aaaaaatgttt gaagaactag gacagaggct gcagcattat     2220
gccaagatag cagctgactt cagaaataag gatgagaaat acaaccatat tgatgagtct     2280
gaaatgaaaa aagtggagaa gtctgttaat gaagtgatgg aatggatgaa taatgtcatg     2340
aatgctcagg ctaaaaagag tcttgatcag gatccagttg tacgtgctca ggaaattaaa     2400
acaaaaatca aggaattgaa caacacatgt gaacccgttg taacacaacc gaaaccaaaa     2460
attgaatcac ccaaactgga aagaactcca aatggcccaa atattgataa aaaggaagaa     2520
gatttagaag acaaaaacaa ttttggtgct gaacctccac atcagaatgg tgaatgttac     2580
cctaatgaga aaaattctgt taatatggac ttggactaga taaccttaaa ttggcctatt      2640
ccttcaatta ataaaatatt tttgccatag tatgtgactc tacataacat actgaaacta    2700
tttatatttt ctttttaag gatatttaga aattttgtgt attatatgga aaagaaaaa       2760
aagcttaagt ctgtagtctt tatgatccta aaagggaaaa ttgccttggt aactttcaga     2820
ttcctgtgga attgtgaatt catactaagc tttctgtgca gtctcaccat ttgcatcact     2880
gaggatgaaa ctgactttttg tcttttggag aaaaaaaaact gtactgcttg ttcaagaggg    2940
```

```
ctgtgattaa aatctttaag catttgttcc tgccaaggta gttttcttgc attttgctct    3000
ccattcagca tgtgtgtggg tgtggatgtt tataaacaag actaagtctg acttcataag    3060
ggctttctaa aaccatttct gtccaagaga aaatgacttt ttgctttgat attaaaaatt    3120
caatgagtaa aacaaaagct agtcaaatgt gttagcagca tgcagaacaa aaactttaaa    3180
ctttctctct cactatacag tatattgtca tgtgaaagtg tggaatggaa gaaatgtcga    3240
tcctgttgta actgattgtg aacactttta tgagctttaa aataaagttc atcttatggt    3300
gtcatttct                                                            3309
```

```
        <210> 583
        <211> 872
        <212> PRT
        <213> Homo Sapiens


        <400> 583
Arg Arg Pro Arg Pro Glu Ala Glu Ala Asp Arg Glu Pro Ala Met Ser
1               5                   10                  15
Val Val Gly Leu Asp Val Gly Ser Gln Ser Cys Tyr Ile Ala Val Ala
            20                  25                  30
Arg Ala Gly Gly Ile Glu Thr Ile Ala Asn Glu Phe Ser Asp Arg Cys
        35                  40                  45
Thr Pro Ser Val Ile Ser Phe Gly Ser Lys Asn Arg Thr Ile Gly Val
    50                  55                  60
Ala Ala Lys Asn Gln Gln Ile Thr His Ala Asn Asn Thr Val Ser Asn
65                  70                  75                  80
Phe Lys Arg Phe His Gly Arg Ala Phe Asn Asp Pro Phe Ile Gln Lys
                85                  90                  95
Glu Lys Glu Asn Leu Ser Tyr Asp Leu Val Pro Leu Lys Asn Gly Gly
            100                 105                 110
Val Gly Ile Lys Val Met Tyr Met Gly Glu Glu His Leu Phe Ser Val
            115                 120                 125
Glu Gln Ile Thr Ala Met Leu Leu Thr Lys Leu Lys Glu Thr Ala Glu
        130                 135                 140
Asn Ser Leu Lys Lys Pro Val Thr Asp Cys Val Ile Ser Val Pro Ser
145                 150                 155                 160
Phe Phe Thr Asp Ala Glu Arg Arg Ser Val Leu Asp Ala Ala Gln Ile
                165                 170                 175
Val Gly Leu Asn Cys Leu Arg Leu Met Asn Asp Met Thr Ala Val Ala
            180                 185                 190
Leu Asn Tyr Gly Ile Tyr Lys Gln Asp Leu Pro Ser Leu Asp Glu Lys
            195                 200                 205
Pro Arg Ile Val Val Phe Val Asp Met Gly His Ser Ala Phe Gln Val
        210                 215                 220
Ser Ala Cys Ala Phe Asn Lys Gly Lys Leu Lys Val Leu Gly Thr Ala
225                 230                 235                 240
Phe Asp Pro Phe Leu Gly Gly Lys Asn Phe Asp Glu Lys Leu Val Glu
                245                 250                 255
His Phe Cys Ala Glu Phe Lys Thr Lys Tyr Lys Leu Asp Ala Lys Ser
            260                 265                 270
Lys Ile Arg Ala Leu Leu Arg Leu Tyr Gln Glu Cys Glu Lys Leu Lys
        275                 280                 285
Lys Leu Met Ser Ser Asn Ser Thr Asp Leu Pro Leu Asn Ile Glu Cys
    290                 295                 300
Phe Met Asn Asp Lys Asp Val Ser Gly Lys Met Asn Arg Ser Gln Phe
305                 310                 315                 320
Glu Glu Leu Cys Ala Glu Leu Leu Gln Lys Ile Glu Val Pro Leu Tyr
```

```
                    325                      330                      335
Ser Leu Leu Glu Gln Thr His Leu Lys Val Glu Asp Val Ser Ala Val
                340                      345                      350
Glu Ile Val Gly Gly Ala Thr Arg Ile Pro Ala Val Lys Glu Arg Ile
                355                      360                      365
Ala Lys Phe Phe Gly Lys Asp Ile Ser Thr Thr Leu Asn Ala Asp Glu
            370                      375                      380
Ala Val Ala Arg Gly Cys Ala Leu Gln Cys Ala Ile Leu Ser Pro Ala
385                      390                      395                      400
Phe Lys Val Arg Glu Phe Ser Val Thr Asp Ala Val Pro Phe Pro Ile
                    405                      410                      415
Ser Leu Ile Trp Asn His Asp Ser Glu Asp Thr Glu Gly Val His Glu
                420                      425                      430
Val Phe Ser Arg Asn His Ala Ala Pro Phe Ser Lys Val Leu Thr Phe
                435                      440                      445
Leu Arg Arg Gly Pro Phe Glu Leu Glu Ala Phe Tyr Ser Asp Pro Gln
                450                      455                      460
Gly Val Pro Tyr Pro Glu Ala Lys Ile Gly Arg Phe Val Val Gln Asn
465                      470                      475                      480
Val Ser Ala Gln Lys Asp Gly Glu Lys Ser Arg Val Lys Val Lys Val
                485                      490                      495
Arg Val Asn Thr His Gly Ile Phe Thr Ile Ser Thr Ala Ser Met Val
                500                      505                      510
Glu Lys Val Pro Thr Glu Glu Asn Glu Met Ser Ser Glu Ala Asp Met
                515                      520                      525
Glu Cys Leu Asn Gln Arg Pro Pro Glu Asn Pro Asp Thr Asp Lys Asn
            530                      535                      540
Val Gln Gln Asp Asn Ser Glu Ala Gly Thr Gln Pro Gln Val Gln Thr
545                      550                      555                      560
Asp Ala Gln Gln Thr Ser Gln Ser Pro Pro Ser Pro Glu Leu Thr Ser
                565                      570                      575
Glu Glu Asn Lys Ile Pro Asp Ala Asp Lys Ala Asn Glu Lys Lys Val
            580                      585                      590
Asp Gln Pro Pro Glu Ala Lys Lys Pro Lys Ile Lys Val Val Asn Val
            595                      600                      605
Glu Leu Pro Ile Glu Ala Asn Leu Val Trp Gln Leu Gly Lys Asp Leu
            610                      615                      620
Leu Asn Met Tyr Ile Glu Thr Glu Gly Lys Met Ile Met Gln Asp Lys
625                      630                      635                      640
Leu Glu Lys Glu Arg Asn Asp Ala Lys Asn Ala Val Glu Glu Tyr Val
                645                      650                      655
Tyr Glu Phe Arg Asp Lys Leu Cys Gly Pro Tyr Glu Lys Phe Ile Cys
                660                      665                      670
Glu Gln Asp His Gln Asn Phe Leu Arg Leu Thr Glu Thr Glu Asp
                675                      680                      685
Trp Leu Tyr Glu Glu Gly Glu Asp Gln Ala Lys Gln Ala Tyr Val Asp
                690                      695                      700
Lys Leu Glu Glu Leu Met Lys Ile Gly Thr Pro Val Lys Val Arg Phe
705                      710                      715                      720
Gln Glu Ala Glu Glu Arg Pro Lys Met Phe Glu Glu Leu Gly Gln Arg
                    725                      730                      735
Leu Gln His Tyr Ala Lys Ile Ala Ala Asp Phe Arg Asn Lys Asp Glu
                740                      745                      750
Lys Tyr Asn His Ile Asp Glu Ser Glu Met Lys Lys Val Glu Lys Ser
                755                      760                      765
```

```
Val Asn Glu Val Met Glu Trp Met Asn Asn Val Met Asn Ala Gln Ala
    770             775                 780
Lys Lys Ser Leu Asp Gln Asp Pro Val Val Arg Ala Gln Glu Ile Lys
785             790                 795                 800
Thr Lys Ile Lys Glu Leu Asn Asn Thr Cys Glu Pro Val Val Thr Gln
            805                 810                 815
Pro Lys Pro Lys Ile Glu Ser Pro Lys Leu Glu Arg Thr Pro Asn Gly
            820                 825                 830
Pro Asn Ile Asp Lys Lys Glu Glu Asp Leu Glu Asp Lys Asn Asn Phe
        835                 840                 845
Gly Ala Glu Pro Pro His Gln Asn Gly Glu Cys Tyr Pro Asn Glu Lys
    850                 855                 860
Asn Ser Val Asn Met Asp Leu Asp
865                 870
```

```
<210> 584
<211> 2918
<212> DNA
<213> Homo Sapiens

<400> 584
ataactggag ctcgcgcgcc tgcaggtcga cactagtgga tccaaagaat tcggcacgag      60
gtgacgacaa cagggacaag gactccgaga agaccaagag gtggtccaag cccaggaagc     120
gctccctgat ggagatggag gggaaggagg atgccctta aggtgctgaa gtgcatgtac     180
tgtggacact cctttgagtc cttgcaggac ctcagcgtcc acatgatcaa aaccaagcat     240
taccagaaag tgcctctgaa ggagccagtg ccagccatca ccaaactggt cccctccacc     300
aaaaagcggg cgcttcagga cctggcgccc cctgctcccc tgagccagc aggaatggcc     360
gcagaggtgg ccctgagtga gtcagccaag gatcagaaag cagcgaaccc gtacgtcacg     420
cccaataacc gctatggcta ccagaatggc gccagctaca cctggcagtt tgaggcccgc     480
aaggcgcaga tcctcaagtg catggagtgt ggcagctccc acgacacgct gcagcagctc     540
accgcccaca tgatggtcac cgggcacttc ctgaaagtga ccacctcggc ttctaagaag     600
ggcaagcagt ggtgctgga ccctgtggtg aagagaaga tccagtccat cccactaccg     660
cccaccaccc acacgcggct gccggcctcc agcatcaaaa agcagcccga ctctcccgcg     720
gggtccacga cttctgaaga aagaaagag ccagagaagg agaagccgcc tgtggctggc     780
gacgcggaga agatcaagga ggagagtgag gacagcttgg agaaatttga gcccagcacc     840
ctgtaccgt acctgcgtga ggaggacctg gacgacagcc ccaagggagg gctggacatt     900
ctcaagtccc tggagaatac cgtctccacg gccattagca agctcagaa tggtgcgccc     960
tcatggggtg ctaccccag catccatgca gcctaccagc tcccgggcac cgtgaagcca    1020
ctgcggcgg ccgtgcagag cgtgcaggtg cagccgtcct atgctggcgg cgtgaagtcg    1080
ctgtcttccg ccgagcacaa cgccctcctg cactccccag ggagcctcac gccccaccg    1140
cacaagagca acgtgtctgc catggaggag ctggtggaga aggtcacggg caaggtcaac    1200
atcaagaagg aggagagacc ccctgagaag gagaagagct ccctggccaa ggctgcgtcc    1260
cccatagcaa aagagaataa agatttcccg aaaacgagg aagtcagcgg caaaccacag    1320
aagaagggcc ctgaggccga gacttgggaa gccaaaaagg agggaccgct ggacgttcac    1380
accccaaatg gcacagagcc tctcaaagca aaggtcacca acggctgtaa caacctgggg    1440
atcatcatgg accactcacc ggagccttcc ttcatcaacc cgctgagcgc tttgcagtcc    1500
atcatgaaca cccacctggg caaggtgtcc aagcccgtga gtccctcgct ggaccgctg     1560
gcgatgctgt acaagatcag caacagcatg ctggacaagc cggtgtaccc cgccaccccct    1620
gtgaagcagg ccgatgccat cgaccgctac tattatgaaa acagcgacca gcccattgac    1680
ttaaccaagt ccaagaacaa gccgctggtg tccagcgtgg ctgattcggt ggcatcacct    1740
ctgcgggaga gcgcactcat ggacatctcc gacatggtga aaaacctcac aggccgcctg    1800
acgcccaagt cctccacgcc ctccacagtt tcagagaagt ccgatgctga tggcagcagc    1860
tttgaggagg cgttggacga gctgtcaccg gtccacaaga ggaagggccg gcagtccaac    1920
tggaaccccgc agcaccttct catcctgcag gcccagttcg cctcgagctt gcgggagacc    1980
acagaaggca agtacatcat gtcggacttg ggcccgcagg agagggtgca catctcgaag    2040
```

```
tttactgggc tctccatgac caccatcagc cactggctgg ccaatgtgaa gtaccagttg   2100
aggaggacag ggggaacgaa attcctaaag aacctggaca cagggcatcc tgttttcttt   2160
tgcaacgatt gtgcctctca gttcagaact gcttctacat acataagtca tttggagaca   2220
cacttgggct tcagcctgaa ggatctctcc aagctgccac tcaatcagat tcaagaacag   2280
cagaatgttt cgaaagtcct caccaacaaa actctgggcc cactgggggc caccgaggaa   2340
gacttgggct ccacattcca atgtaagctc tgcaaccgga cttttgcgaa gcaagcacgc   2400
agtcaaactg caccttagta agacccacgg caagtctccc gaggaccacc tgatctatgt   2460
gactgagttg gagaaacagt agcgtccagg tatgcaagag accgcggaac attgcactaa   2520
acgtcgtcga gctgcactag gcatggcctg agcctctgaa atcagtcttt cctttgttgc   2580
tggcccgcct ctctggacct tggttttcct acacatattt tgtatattta tatgctttct   2640
gtccgatctg tgcatgttat ttttcttttt ccgtgagtca aagtctgacc tttattttca   2700
acatctgttt ttggtgttaa gctatctttt gtaggaaata gtggggcaca ctactcagag   2760
acattattta gcagtaaaga aagacacaaa taacaatgat aaaaagacat cctaaaatgg   2820
tgaagttgcc atgacaataa aggtcataga acctggtagt gtcaaattta accctttgag   2880
gactgtaatt gcatttctgt gcctttcact tgaaaaaa                           2918
```

```
       <210> 585
       <211> 687
       <212> PRT
       <213> Homo Sapiens


       <400> 585
Met Ala Ala Glu Val Ala Leu Ser Glu Ser Ala Lys Asp Gln Lys Ala
1               5                   10                  15
Ala Asn Pro Tyr Val Thr Pro Asn Asn Arg Tyr Gly Tyr Gln Asn Gly
            20                  25                  30
Ala Ser Tyr Thr Trp Gln Phe Glu Ala Arg Lys Ala Gln Ile Leu Lys
        35                  40                  45
Cys Met Glu Cys Gly Ser Ser His Asp Thr Leu Gln Gln Leu Thr Ala
    50                  55                  60
His Met Met Val Thr Gly His Phe Leu Lys Val Thr Thr Ser Ala Ser
65                  70                  75                  80
Lys Lys Gly Lys Gln Leu Val Leu Asp Pro Val Val Glu Glu Lys Ile
                85                  90                  95
Gln Ser Ile Pro Leu Pro Pro Thr Thr His Thr Arg Leu Pro Ala Ser
            100                 105                 110
Ser Ile Lys Lys Gln Pro Asp Ser Pro Ala Gly Ser Thr Thr Ser Glu
        115                 120                 125
Glu Lys Lys Glu Pro Glu Lys Glu Lys Pro Pro Val Ala Gly Asp Ala
        130                 135                 140
Glu Lys Ile Lys Glu Glu Ser Glu Asp Ser Leu Glu Lys Phe Glu Pro
145                 150                 155                 160
Ser Thr Leu Tyr Pro Tyr Leu Arg Glu Glu Asp Leu Asp Asp Ser Pro
                165                 170                 175
Lys Gly Gly Leu Asp Ile Leu Lys Ser Leu Glu Asn Thr Val Ser Thr
            180                 185                 190
Ala Ile Ser Lys Ala Gln Asn Gly Ala Pro Ser Trp Gly Gly Tyr Pro
        195                 200                 205
Ser Ile His Ala Ala Tyr Gln Leu Pro Gly Thr Val Lys Pro Leu Pro
    210                 215                 220
Ala Ala Val Gln Ser Val Gln Val Gln Pro Ser Tyr Ala Gly Gly Val
225                 230                 235                 240
Lys Ser Leu Ser Ser Ala Glu His Asn Ala Leu Leu His Ser Pro Gly
                245                 250                 255
Ser Leu Thr Pro Pro Pro His Lys Ser Asn Val Ser Ala Met Glu Glu
```

-314-

```
                  260                    265                    270
Leu Val Glu Lys Val Thr Gly Lys Val Asn Ile Lys Lys Glu Glu Arg
         275                    280                    285
Pro Pro Glu Lys Glu Lys Ser Ser Leu Ala Lys Ala Ala Ser Pro Ile
         290                    295                    300
Ala Lys Glu Asn Lys Asp Phe Pro Lys Thr Glu Val Ser Gly Lys
305                    310                    315                    320
Pro Gln Lys Lys Gly Pro Glu Ala Glu Thr Trp Glu Ala Lys Lys Glu
                  325                    330                    335
Gly Pro Leu Asp Val His Thr Pro Asn Gly Thr Glu Pro Leu Lys Ala
         340                    345                    350
Lys Val Thr Asn Gly Cys Asn Asn Leu Gly Ile Ile Met Asp His Ser
         355                    360                    365
Pro Glu Pro Ser Phe Ile Asn Pro Leu Ser Ala Leu Gln Ser Ile Met
         370                    375                    380
Asn Thr His Leu Gly Lys Val Ser Lys Pro Val Ser Pro Ser Leu Asp
385                    390                    395                    400
Pro Leu Ala Met Leu Tyr Lys Ile Ser Asn Ser Met Leu Asp Lys Pro
                  405                    410                    415
Val Tyr Pro Ala Thr Pro Val Lys Gln Ala Asp Ala Ile Asp Arg Tyr
                  420                    425                    430
Tyr Tyr Glu Asn Ser Asp Gln Pro Ile Asp Leu Thr Lys Ser Lys Asn
         435                    440                    445
Lys Pro Leu Val Ser Ser Val Ala Asp Ser Val Ala Ser Pro Leu Arg
         450                    455                    460
Glu Ser Ala Leu Met Asp Ile Ser Asp Met Val Lys Asn Leu Thr Gly
465                    470                    475                    480
Arg Leu Thr Pro Lys Ser Ser Thr Pro Ser Thr Val Ser Glu Lys Ser
                  485                    490                    495
Asp Ala Asp Gly Ser Ser Phe Glu Glu Ala Leu Asp Glu Leu Ser Pro
                  500                    505                    510
Val His Lys Arg Lys Gly Arg Gln Ser Asn Trp Asn Pro Gln His Leu
         515                    520                    525
Leu Ile Leu Gln Ala Gln Phe Ala Ser Ser Leu Arg Glu Thr Thr Glu
         530                    535                    540
Gly Lys Tyr Ile Met Ser Asp Leu Gly Pro Gln Glu Arg Val His Ile
545                    550                    555                    560
Ser Lys Phe Thr Gly Leu Ser Met Thr Thr Ile Ser His Trp Leu Ala
                  565                    570                    575
Asn Val Lys Tyr Gln Leu Arg Arg Thr Gly Gly Thr Lys Phe Leu Lys
                  580                    585                    590
Asn Leu Asp Thr Gly His Pro Val Phe Phe Cys Asn Asp Cys Ala Ser
         595                    600                    605
Gln Phe Arg Thr Ala Ser Thr Tyr Ile Ser His Leu Glu Thr His Leu
         610                    615                    620
Gly Phe Ser Leu Lys Asp Leu Ser Lys Leu Pro Leu Asn Gln Ile Gln
625                    630                    635                    640
Glu Gln Gln Asn Val Ser Lys Val Leu Thr Asn Lys Thr Leu Gly Pro
                  645                    650                    655
Leu Gly Ala Thr Glu Glu Asp Leu Gly Ser Thr Phe Gln Cys Lys Leu
         660                    665                    670
Cys Asn Arg Thr Phe Ala Lys Gln Ala Arg Ser Gln Thr Ala Pro
         675                    680                    685
```

<210> 586

-315-

```
        <211> 1898
        <212> DNA
        <213> Homo Sapiens

        <400> 586
ccgccttggg tcagcctgct cccctgcttc ctgccgcagt gggggccgtc agcctggcca      60
cctcccagct cccaagccca cccctggggc ccaccgtccc cccacagcca ccctcggccc     120
tggagtcgga tggggaaggg ccgccccca gggtgggctt tgtggacagc accatcaaga     180
gcctggacga naagctgcgg actctgctct accaggagca cgtgcccacc tcctcagcct     240
cagctgggac ccctgtggag gtgggcgaca ganacttcac cctggagccc ctgagagggg     300
accagccccg ctcanaggtc tgcggggggg acctggccct gccccagtg cctaaggagg     360
cggtctcagg gcgtgtccag ctgccccagc ccttggtgga gaagtcagaa ctggccccca     420
ctcgagggc cgtgatggag cagggcacgt cctcgtcaat gacagagtcg tctcccagga     480
gtatgctagg ctatgacaga gatggaaggc aggtggcctc agactcccat gtggtcccca     540
gcgtccccca ggatgtacct gcttttgtga gacctgcacg tgtggancc acanacaggg     600
atggtggana agctgganaa agctcggcan agccccgcc gagtgacatg ggcanngtgg     660
ggggccaggc tagccacccc cagacactcg gcnctcgagc tttggggtcc cctcggaanc     720
gtccagatca ccaggatgtc agctcaccag ccaagactgt gggccgtttc tcggtggtca     780
gcactcagga cgagtggacc ctggcctccc cccacagcct gagatactct gccccacccg     840
acgtctacct ggacgaggcc ccctccagcc ccgacgtgaa gctggcagtg cggcgggcgc     900
agacggcctc ctccatcgag gtcggcgtgg gcgagcccgt gtccagcgac tctggggacg     960
agggccctcg ggcgagaccc ccggtgcaga agcaggcgtc cctgcccgtg agtggcagcg    1020
tggctggcga cttcgtgaag aaggccaccg cttcctgcag aggccttctc gggccggctt    1080
cgctgggccc cgagacaccc agcagggtgg gcatgaaggt ccccacgatc agcgtgacct    1140
ccttccattc ccagtcgtcc tacatcagca gcgacaatga ttcggagctc gaggatgctg    1200
acataaagaa ggagctgcan agtctgcggg agaagcacct gaaggagatc tcggagctgc    1260
agagccagca gaagcaggag atcgaagctc tgtnccgccg cctgggcaag ccactgcccc    1320
ccaacgtggg cttcttccac acggcacccc ccactggccg ccgganaaaa accancaaga    1380
ncaagctgaa ngcaggcaag ctgctaaatc ccctggtgcg gcagctcaag gtcgtggcct    1440
ccaacacagg tcacttggct gactccanca naagccctcc cgctaangac ctgcccnagc    1500
cagtgtgggg ctcactgcan acaacacggg cctgaacggg aangcagtgc anaccancan    1560
ccctgctccg tccggggctc cctgtcttcn gacatctgct ccggcttacc antgatggaa    1620
gcggaacgcg tngncaangg tcctccacca acaacctggc ccaggcctga accaagcccc    1680
acccgccctg cacgtccaag cgcangtgaa caacancaac nacaagaaag gttcttcncc    1740
gacgaactgc acaanctggt ggacnaatgg acaacaanan ngtggggggc gcgcactgaa    1800
acccacnctc nacccctnaa ncnnaaccnc aacttccana cattgaggcc cgcaggtggg    1860
ctgccctggc naagcccggc tttnacccc ctccaaca                            1898

        <210> 587
        <211> 399
        <212> PRT
        <213> Homo Sapiens

        <400> 587
Ala Leu Gly Gln Pro Ala Pro Leu Leu Pro Ala Ala Val Gly Ala Val
1               5                   10                  15
Ser Leu Ala Thr Ser Gln Leu Pro Ser Pro Pro Leu Gly Pro Thr Val
            20                  25                  30
Pro Pro Gln Pro Pro Ser Ala Leu Glu Ser Asp Gly Glu Gly Pro Pro
        35                  40                  45
Pro Arg Val Gly Phe Val Asp Ser Thr Ile Lys Ser Leu Asp Lys Leu
    50                  55                  60
Arg Thr Leu Leu Tyr Gln Glu His Val Pro Thr Ser Ser Ala Ser Ala
65                  70                  75                  80
Gly Thr Pro Val Glu Val Gly Asp Arg Phe Thr Leu Glu Pro Leu Arg
```

```
                    85                    90                    95
Gly Asp Gln Pro Arg Ser Val Cys Gly Gly Asp Leu Ala Leu Pro Pro
            100                   105                   110
Val Pro Lys Glu Ala Val Ser Gly Arg Val Gln Leu Pro Gln Pro Leu
        115                   120                   125
Val Glu Lys Ser Glu Leu Ala Pro Thr Arg Gly Ala Val Met Glu Gln
    130                   135                   140
Gly Thr Ser Ser Ser Met Thr Glu Ser Ser Pro Arg Ser Met Leu Gly
145                   150                   155                   160
Tyr Asp Arg Asp Gly Arg Gln Val Ala Ser Asp Ser His Val Val Pro
                165                   170                   175
Ser Val Pro Gln Asp Val Pro Ala Phe Val Arg Pro Ala Arg Val Pro
            180                   185                   190
Thr Arg Asp Gly Gly Ala Gly Ser Ser Ala Pro Pro Pro Ser Asp Met
            195                   200                   205
Gly Val Gly Gly Gln Ala Ser His Pro Gln Thr Leu Gly Arg Ala Leu
    210                   215                   220
Gly Ser Pro Arg Arg Pro Asp His Gln Asp Val Ser Ser Pro Ala Lys
225                   230                   235                   240
Thr Val Gly Arg Phe Ser Val Val Ser Thr Gln Asp Glu Trp Thr Leu
                245                   250                   255
Ala Ser Pro His Ser Leu Arg Tyr Ser Ala Pro Pro Asp Val Tyr Leu
            260                   265                   270
Asp Glu Ala Pro Ser Ser Pro Asp Val Lys Leu Ala Val Arg Arg Ala
        275                   280                   285
Gln Thr Ala Ser Ser Ile Glu Val Gly Val Gly Glu Pro Val Ser Ser
    290                   295                   300
Asp Ser Gly Asp Glu Gly Pro Arg Ala Arg Pro Pro Val Gln Lys Gln
305                   310                   315                   320
Ala Ser Leu Pro Val Ser Gly Ser Val Ala Gly Asp Phe Val Lys Lys
            325                   330                   335
Ala Thr Ala Ser Cys Arg Gly Leu Leu Gly Pro Ala Ser Leu Gly Pro
            340                   345                   350
Glu Thr Pro Ser Arg Val Gly Met Lys Val Pro Thr Ile Ser Val Thr
        355                   360                   365
Ser Phe His Ser Gln Ser Ser Tyr Ile Ser Ser Asp Asn Asp Ser Glu
    370                   375                   380
Leu Glu Asp Ala Asp Ile Lys Lys Glu Leu Ser Leu Arg Glu Lys
385                   390                   395
```

```
        <210> 588
        <211> 707
        <212> DNA
        <213> Homo Sapiens

        <400> 588
agatggcgcc tgttgtgaca gggaaatttg gtgagcggcc tccacctaaa cgacttacta      60
gggaagctat gcgaaattat ttaaaagagc gaggggatca aacagtnctt attcttcatg     120
caaaagttgc acagaagtca tatgaaatg aaanaaggtt tttttgccca cctccttgtg     180
tatatcttat gggcantgga tggaagaaaa aaaangaaca aatggaacgc gatggttgtt     240
ctgaacaaaa gtctcaaccg tgtgcattta ttgggatagg aaatagtgac caaaaaatgc     300
agcagctana cttggaagga aagaactatt gcacagccaa acattgtat atatctgact     360
cagacaagcg aaagcacttc atgttgtctg taaagatgtt ctatggcaac agtgatgaca     420
ttggtgtgtt cctcagcaag cgaataaaag tcntctccaa accttccaaa aagaacagtc     480
attgaaaaat gctgacttat gcattgcctc angaacaaag gtggctctgt ttaatcgact     540
```

```
acnatcccan acagttagta ccagatactt gcatgttana aggaggtnat tttcatgcca        600
gttcacagcn gtggggagcc ttttttattc anctcttgga tgatgatgan tccnaaggag        660
aagaattcac ngtccgagat ggctacatcc attatggaca aacagtc                     707
```

          <210> 589
          <211> 551
          <212> DNA
          <213> Homo Sapiens

          <400> 589
```
actgtggctt ctgcatttca aatcagcact tgcaggagga caacggggtt tttgaatagt         60
atcacctggt atgaaaagtt ttcccaagaa accacaaacg attgttcatt ttttctcctt        120
ttttgttaac tttttgccac actcaagtca gtttaagtcc tagcaaaaag acggtagtta        180
ggataccact gtggctgtan atgatgtgac actggttgaa tttgtgctgg cgtttgtgta        240
acttccctcg ctgtttgtgt ttgattcgtt aggggcacc tggcttgaat tggctcgaag         300
gattgctcct gctgcactgc aatgtggccg cggccctggt tctggtgtgt angtaaaggt        360
aaggctggtg gaataaatga ttccaccatt tcggaccaaa gttactggaa cctggactgg        420
ttgccggacc catctccaac cttctcggaa tgcanaaatg tctgggacga cacagaacat        480
acctctccac acctgtacat aatttcagct tctacatccc caaaccacac tcgtaaattt        540
ggantnaaaa t                                                             551
```

          <210> 590
          <211> 478
          <212> DNA
          <213> Homo Sapiens

          <400> 590
```
actgtggctt ctgcatttca aatcagcact tgcagggana caacggggtt tttgaatagt         60
atcacctggt atgaaaagtt ttcccaagaa accacaaacn attgttcatt ttttctcctt        120
ttttgttaac tttttngccac actcaantca gtttaagtcc tagcaaaaan acggtagtta       180
ggataccact gtggctgtaa atgatntgac actggttgaa tttgtgctgg cgtttgtgta        240
acttccctcg ctgtttgtgt ttgattcgtn aggggcacc tggcttgaat tggctcgaag         300
gattgctcct gctgcactgc aatgtggccg cgggcctgnt tcttatntgt tgtaaangtn        360
aggntggtgg aataaatgat tccatcatnt cggancgaag ttgctgggaa ctgggganggg       420
tngncggaac catctccgac cncccggaaa ngcagaagtg ttngtggnag accggaac          478
```

          <210> 591
          <211> 707
          <212> DNA
          <213> Homo Sapiens

          <400> 591
```
actgtggctt ctgcatttca aatcagcact tgcaggaga caacggggtt tttgaatagt          60
atcacctggt atgaaaagtt ttcccaanaa accacaaacg attgttcatt ttttctcctt        120
ttttgttaac tttttgccac actcaantca gtttaantcc tancaaaaag acggtagtta        180
ggataccact gtggctgtaa atgatgtgac actggttgaa tttgtgctgg cgtttgtgta        240
acttccctcg ctgtttgtgt ttgattcgtt aggggcacc tggcttgaat tggctcgaag         300
gattgctcct gctgcactgc aatgtggccg cggccctggt tctggtgtgt aggtaaaggt        360
aaggctggtg gaataaatga ttccatcatt tcggaccaaa gttactggaa cctggactgg        420
ttgccggacc catctccaac cttctcggaa tgcagaaatg tctgggacga cacagancat        480
actctctcca cacctgtaca tagtttcngc ttctacatcc ccaaaccaca ctcgtaaatt        540
tggantgaaa ttctgtcctg taagttcaag cattnctacg tccccacccg ccatttcaac       600
tgaaaggctc tctaccacan ggnacaggaa atgactgggg caaggacagg gcccattccc        660
tcattaaatg tnatactccg ccttatcngt cctaaangaa tgtncaa                      707
```

```
<210> 592
<211> 541
<212> DNA
<213> Homo Sapiens

<400> 592
ggtaaacttt tggccacncn caattcantt taattcctac caaaaaaacg gtatttagna        60
tnccnctgtg gctgtaaata atttaacnct ggttaaattn ntnctggctt tngtntanct       120
cccccccctn ttngtttttn atccnttagg gggcacctgn cttnantngg cncaaaggat       180
ngcccctgct gcantgcaat ttggccncgg ccctggtcct ggtttntagg taaaggtaag       240
gcnggtgnaa taantaatcc caccattncg naccaaattt actgnaacct gaacnggttg       300
ccgnacccan cnccancctn cncgaaatgc aaaantttct ggnacaacnc aaaccntacn       360
cncnccaccc ctntncntat ttncagctnc tacntcccca aaccacacnc ntaaattngn       420
attaaaatcc tntcctgtaa ttccaagcat ggctacttcc ccaccgccat tcaactnaag       480
gcccnctacc acaggcncag nattaantgg ggcaaggaaa gggcccatcc ccccataaaa       540
t                                                                       541


<210> 593
<211> 605
<212> DNA
<213> Homo Sapiens

<400> 593
actgtggctt ctgcatttca aatcagcact tgcagggana caacggggtt tttgaatant        60
atcacctggt atgaaaagtt ttcccaanaa accacaaacn antgttcatt tttnctcctt       120
ttttgttaac tttttgccac actcaantca gtttaantcc tagcaaaaaa acggtagtta       180
ggataccact gtggctgtaa atgatgtnac actggttgaa tttgtgctgg cgtttgtgtn       240
acttccctcg ctgtttgtgt ttgattcgtt aggggcacc tggcttgaat tggctcgaan       300
gattgctcct gctgcactgc aatgtggccg cggccctggt tctggtgtgt aagtaaaggt       360
aaggctggtg gaataaatga ttccntcatt tcggancaaa gttactggaa cctggantgg       420
ttgncggacc atctccaacc ttctcggaat gcanaaatgt ctgggacaan acnnaacata       480
ctctctccnc acctggttca tantttcagc ttctacatcc cccaaaccac actcntaaat       540
ttggantgaa attctgtcct gttaattcaa acattgctac gtccccnccg ccattcaact       600
gaaag                                                                   605


<210> 594
<211> 666
<212> DNA
<213> Homo Sapiens

<400> 594
gaagagtttg tggaagatgg cgcctgttgt gacagggaaa tttggtgagc ggcctccacc        60
taaacgactt actagggaag ctatgcgaaa ttatttaaaa gagcgagggg atcaaacagt       120
acttattctt catgcaaaag ttgcacagaa gtcatatgga aatgaaaaaa ggttttttttg      180
cccacctcct tgtgtatatc ttatgggcag tggatggaag aaaaaaaaag aacaaatgga       240
acgcgatggt tgttctgaac aagagtctca accgtgtgca tttattggga taggaaatag       300
tgaccaagaa atgcagcagc taaacttgga aggaaagaac tattgcacag ccaaaacatt       360
gtatatatct gactcagaca agcgaaagca cttcatgttg tctgtaaaga tgttctatgg       420
caacagtgat gacattggtg tgttcctcan caagcggata aaagtcatct ccaaaccttc       480
caaaaagaac agtcattgaa aaatgctgac ttatgcattg cctcaggaac aaaggtggct       540
ctgtttaatc gactacgatc ccagacagtt ngtaccagat acttgcatgt anaaggaggt       600
aattttccat gccagttccc accagtgggg agcctttttt attcnctctt gggatgatga       660
tgaatc                                                                  666


<210> 595
```

```
        <211> 600
        <212> DNA
        <213> Homo Sapiens

        <400> 595
gccacactca agtcagttta agtcctagca aaaagacggt agttaggata ccactgtggc       60
tgtanatgat gtgacactgg ttgaatttgt gctggcgttt gtgtaacttc cctcgctgtt      120
tgtgtttgat tcgttagggg gcacctggct tgaattggct cgaaggattg ctcctgctgc      180
actgcaatgt ggccgcggcc ctggttctgg tgtgtaggta aaggtaaggc tggtggaata      240
aatgattcca tcatttcgga ccaaagttac tggaacctgg actggttgcc ggacccatct      300
ccaaccttct cggaatgcag aaatgtctgg gacgacacag ancatactct ctccacacct      360
gtacatagtt tcagcttcta catccccaaa ccacactcgt aaatttggag tgaaattctg      420
tcctgtaagt tcaagcattg ctacgtcccc accgccattc aactgaaggc tctctaccac      480
aggcacagga atgactgggg caaggacagg gcccattccc tncataaaat gtntaatttg      540
gggncaantg tggcccccaa ccccccccca aagggcatna tttaacnccn ctttaattgg      600

        <210> 596
        <211> 835
        <212> DNA
        <213> Homo Sapiens

        <400> 596
actgtggctt ctgcatttca aatcagcact tgcagggaga caacggggtt tttgaatagt       60
atcacctggt atgaaaagtt ttcccaanaa accacaaacn attgttcatt tttttctcctt      120
ttttgttaac tttttgccac actcaantca gtttaagtcc tagcaaaaan acggtagtta      180
ggataccact gtggctgtaa atnatgtgac actggttgaa tttgtgctgg cgtttgtgta      240
acttccctcg ctgtttgtgt ttgattcgtt aggggggcacc tggcttgaat tggctcgaag      300
gattgctcct gctgcactgc aatgtggccg cggccctggt tctggtgtgt aggtaaaggt      360
aaggctggtg gaataaatga ttccatcatt tcggaccaaa gttactggaa cctggactgg      420
ttgccggacc catctccaac cttctcggaa tgcagaaatg tctgggacga cacanancat      480
actctctcca cacctgtaca tagtttcagc ttctacatcc ccaaaccaca ctcgtaaatt      540
tggagtgaaa ttctgtcctg taagttcaag cattgctacg tccccaccgc cattcaactg      600
aaggcctcta cacaggcaca ggaatgactg gggcaaggan agggcccatt ccctcataaa      660
atgtatactc tgccttatct gtgctaatga ttgtccagga aacgccanca ttttaccacc      720
tcnttattgg ttcttttggg antggaatgg cctgaaattg aaatattctt ccttgaaaaa      780
aggccaaata cntcttctgt ttccttnaag ggtaaaatgc ccattttgg aattg            835

        <210> 597
        <211> 443
        <212> DNA
        <213> Homo Sapiens

        <400> 597
agcagttcga atgccaggaa actgctcgag tgccaggtgc aggtggggc ccccgaggag        60
gaggaggagg aggaggagga cgcgggcctg gtggccgagg ccgangccgt ggctgccggc      120
tggatgctcg atttcctctg cctctctctt tgccgagctt tccgcnacgg ccgctccgag      180
gacttccncn ggacccgcaa cagcgcanag gctattattc atggactatc cagtctaaca      240
gcttgccagt gagaacgata tacatatgtc agttttgac aagaattgca gcaggaaaaa       300
cccttgatgc ncagtttgaa aatgatgaac gaattacacc cttggaatcn gccctgatga      360
tttggggttc aattgaaaag gaacatgacn aacttcntga gaaatacag aatttaatta       420
aaattcangc tatngctgtt tgt                                               443

        <210> 598
        <211> 491
        <212> DNA
```

<213> Homo Sapiens

<400> 598

```
gtactttgag gagttcctac tcttctttct ttcttattaa ggtcttgttg ctgggttcca      60
tgttgcaact tagataanaa aagattcttg tgagacctca ataaggatac tgtaccctct     120
gaggattcag ttaccgcaga ctgtttgtca ctaacacttt ttcttgtatc caaattagct     180
tcagtttcca tttcaacatc attaccacta ggtttatctt gagaagttat tgttcttgtc     240
cttttgcttt ctactacttt tgccgctgcc ttcattagaa aggttgatga tttttcactt     300
agcacataat tcacataact cttaattttc tccatcatgt ggttgtagct gaagtgttga     360
aaaaaggaat gaaatgtatc tttctgagan attatcataa gcaatttgct tttgaaaggc     420
atatgagaat ttggatcacc aaatattctt tcaaagactt cttctgcttc tttaaagttg     480
ccattttcca t                                                          491
```

<210> 599
<211> 802
<212> DNA
<213> Homo Sapiens

<400> 599

```
gtactttgag gagttcctac tcttctttct ttcttattaa ggtcttgttg ctgggttcca      60
tgttgcaact taaataagaa aagattcttg tgagacctca ataaggatac tgtaccctct     120
gaggattcag ttaccgcaga ctgtttgtca ctaacacttt ttcttgtatc caaattagct     180
tcagtttcca tttcaacatc attaccacta ggtttatctt gagaagttat tgttcttgtc     240
cttttgcttt ctactacttt tgccgctgcc ttcattagaa aggttgatga tttttcactt     300
agcacataat tcacataact cttaattttc tccatcatgt ggttgtagct gaagtgttga     360
aaaaaggaat gaaatgtatc tttctgagag attatcataa gcaatttgct tttgaaaggc     420
atatgagaat ttggatcacc aaatattctt tcaaagactt cttctgcttc tttaaagttg     480
ccattttcca tacaaacagc tatagcctga attttaatta aattctgtat ttcttcatga     540
agtttgtcat gttccttttc aattgaaccc caaatcatca gggctgattc caanggtgta     600
attcgttcat catttttcaaa ctgtgcatca agggtttttc ctgctgcaat tcttgtcaaa     660
aactgacata tgtntatcgt tctcaactgg cnagcctgtt aaactggaaa atccatgaat     720
aataacctct ggcgctgttg cgggtcctgc ggaaattccn cggaaccggc cgtcncggaa     780
aactcngcaa aagaaaaaaa gc                                               802
```

<210> 600
<211> 523
<212> DNA
<213> Homo Sapiens

<400> 600

```
gaaaagcaac ttttattgaa naatttggag ggaaggttcc atattatatt ataatagtaa      60
aaatactaaa gttgaatgtt gtaaaaaaac nccgtggtgc agcggcagcg gcagcgtctg     120
gccaggaggc gtggaggggc ccagggatgg ccaccccac agggagtcag ggagggcctg     180
gggcgacagc ggaaaggtta agcgtcnaaa aggtcaagtg ctaccgtgga naaatcatct     240
gaggggggagg ctcccggtgg gacagtcacc aanaactgtn acacacaagg ggaagggga     300
gggctttcct gtcacaaana ttaaaaaccc ccnaaatgca tttgaacaac atnatacacn     360
ataacaaatt taaaccttgc tcctctgtcc cactgggtna accctggccc atcccccatc     420
cctggtccca tcccaggggc ccagcctccg atnactcctc anaaacacng ccttnntgct     480
gggggggctgc tgtntncctg ccaccccnn gaaaaggtgc tgg                       523
```

<210> 601
<211> 530
<212> DNA
<213> Homo Sapiens

```
     <400> 601
aaaaccaact   tttattgaaa   aatttggagg   gaaggtncca   tnttatntta   taatantaaa        60
aatactaaat   ttaaattttn   taaaaaaacc   ccntgntgca   ccggcancgg   cancttctgg       120
ccaaaangct   tnaaggggcc   cagggatngc   cnccccnca    gggattcngg   gagggcctgg       180
ggcaanancg   naaaggttaa   ccntcnaaaa   ggtcaattnc   taccgtgnaa   aaatnatctn       240
aggggangc    tcccggtggg   acactcccn    aaaactntna   cccaaaaggg   gaaggggag        300
ggctttcctn   tnncaaaaat   tnaaancccc   cnaaatgcct   ttnaacnact   ttntncccan       360
tnncaatttt   naaccttgcn   cctctntccc   actgggtnaa   ccctggccca   tcccccatcc       420
ctggtcccnt   cccnggggcc   cacccccna   taacttcctc    aaaaaccngc   cttnttnctg       480
gggggctgct   nttttcttcc   cccccaana    aaaggtnctg   gcccccctcc                    530


     <210> 602
     <211> 311
     <212> DNA
     <213> Homo Sapiens


     <400> 602
gccnancagg   nanccgccgc   tgaagccacc   gccgggtgcc   cagcgccgcc   gccgcccccg        60
agctcccccg   cgccctgcc    cncgggcggn   cggtgggcac   cgggcgccat   ggccgcgccg       120
gganccgctg   cggntncgcn   tgtgccnctt   ggtgcncgga   anancanggc   tacngnttct       180
acctntacgt   gtgananngg   ccgccgcggg   cacttcntcc   ggcgcgtgna   ncctctgttc       240
ccccgccgag   gcngccgcgc   tgtgctctgg   ggatctnctg   ntcnaggtca   acntgcntca       300
acgtgnaggg   c                                                                   311


     <210> 603
     <211> 289
     <212> DNA
     <213> Homo Sapiens


     <400> 603
gcanagaaag   gtttgtttta   ttgcaattat   ttaaatcncg   tcccangggg   gaggggaagg        60
gggangggaa   ggggggggtn   tctggtnttn   attngatncc   tgtctgccan   cttnnacatc       120
tatnangaan   anaaccatca   ncncncntcc   ctttcantca   tctggcncct   gcanaccatc       180
tttcgccctc   tnccccccgc   tgctctccna   ctccntgac    cnctctcatc   tctctccnct       240
ctgnctcctc   nctctntctc   tcatttctct   gttncacnct   ctctcccccc                    289


     <210> 604
     <211> 356
     <212> DNA
     <213> Homo Sapiens


     <400> 604
ctgaagccac   cgccgggtgc   ccagcgccgc   cgccgcccccc  gagctccccc   gcgcccctgc        60
ccgcgggcgg   ccggtgggca   tcgggcgcca   tggccgcncc   ggancgcctg   cggccgcgcc       120
tgtgccgctt   ggtgcgcgga   nagcanggct   acggcttcca   cctgcacggt   gagaanggcc       180
gccgcgggca   nttcatccgg   cgcgtggaac   ccggttcccc   cgccgaggcc   nccgcnctgc       240
gcgctgggga   ccgcntgntc   naggtcnacn   gcgtcaacnt   ggagggcgat   accaccncct       300
ngtgntgcnt   acgatcnang   ctgtngangg   gcanactcgg   ctgctggtgg   tggacc           356


     <210> 605
     <211> 290
     <212> DNA
     <213> Homo Sapiens


     <400> 605
```

```
gcaaagaang gtttgtntta ttgcaattat ttanagcgcg tcccaagggg gaggggangg          60
gggangggaa gggggggggtn tcttgctana aactggaaac ntgtttctta ccccnatntc         120
nnantcgact nccaccaact gtnnntcttc cttcctttcc cnangtccct anntaccncc          180
tnttgccctt ctnccccttn tttcccctcn cgctttccct nactctttat ctntcttntc          240
ctctctctct ctcacctctt tctcccccctc ccttcacnct cacnttgtct                    290
```

        <210> 606
        <211> 714
        <212> DNA
        <213> Homo Sapiens

        <400> 606

```
cgccagaaaa agttatttta attttctatt aaacattctt ctcaaagcat tattttatcc          60
tatatctcac tgaattttaa gaaataacat tagtattaga aaaactagga aaaaagataa         120
atgcagataa ttaaacttac atgaaaaagg aaaattataa caaaggactg agaacgttat         180
aaattgaaat gagattataa tttgaaaact gcatctgaaa gcaaacttta ttgttcaatt         240
atncttaatg atggtgtttt atgactaata cactgatttt tcaagaagga aacccatgtt         300
aaaaatattt ttattttaaa aataagcctg tgttcaagct ctgatcatat ttcttttatt         360
ttgatttggg aanaaaaatac tgtttctgat agcatgaaat gcaaaatttt tagattttta        420
atctcactaa ttttaanaac tattgagaaa ttgattaatg acatgaagtg cacaacacta         480
attactggcc agctgttggc attgtgtttc ttacttagtt ctcccaaggg aaaactctta         540
aattgaatct tcagcagaat aatccttaaa tatactttgt aagcaaaaca aaagcttttt         600
tgtttacata gttctttggg attttactgt tcctaatttt attctgaaac tcaattttac         660
cccagaccat aattaccata ttaactttgt tntgcacagt tgtttgccaa ttca               714
```

        <210> 607
        <211> 687
        <212> DNA
        <213> Homo Sapiens

        <400> 607

```
attttaattt tctattaaac attcttctca aagcattatt ttatcctata tctcactgaa          60
ttttaanaaa taacattagt attagaaaaa ctaggaaaaa agatnaatgc agataattaa         120
acttacatga aaaaggaaaa ttataacaaa ggactgagaa cgttataaat tgaaatgaga         180
ttataatttg aaaactgcat ctgaaagcaa actttattgt tcaattattc ttaatgatgg         240
tgttttatga ctaatacact gattttttcaa taggaaacc catgttaaaa atatttttat         300
tttaaaaata agcctgtgtt caagctctga tcatatttct tttattttga tttgggaaga         360
aaatactgtt tctgatagca tgaaatgcaa aatttttaga tttttaatct cnctaatttt         420
aagaactatt gagaaattga ttaatgacat gaagtgcaca acactaatta ctggccagct         480
gttggcattg tgtttcttac ttagttctcc caaggaaaac tcttaaactg aatcttcagc         540
ngaataacct taaatatact ttgttagcca aacaaaactt ttttgtttac atagttcttt         600
ggatttttact gttcctaatt ttattctgaa actccatttt tccccagacc ataattaccc         660
tatttaactt tgttatgcac agttgtt                                             687
```

        <210> 608
        <211> 994
        <212> DNA
        <213> Homo Sapiens

        <400> 608

```
ctcacccagt tgctcctcag atgtttgggt atgctggaaa agaacatatg gaaaaatatg          60
gaacaaaaat tgaacacttt gcaaaaattg gatggaaaaa tcataaacat tcagttaata         120
acccgtattc ccagttccaa gatgaataca gtttagatga agtgatggca tctaaagaag         180
ttttttgattt tttgactatc ttacaatgtt gtcccacttc agatggtgct gcagcagcaa         240
ttttggccag tgaagcattt gtacagaagt atggcctgca atccaaagct gtggaaattt         300
```

```
tggcacaaga aatgatgact gatttgccaa gctcgtttga agaaaaaagc attattaaaa    360
tggttggctt tgatatgagt aaagaagctg caagaaaatg ctatgagaaa tctggcctga    420
caccaaatga tattgacgta atagaacttc acgattgctt ttctaccaac gaactcctta    480
cttatgaagc actgggactc tgtccagaag gacaaggtgc aacgctggtt gatagaggag    540
ataatacata tggaggaaag tgggtcataa atcctagtgg tggactgatt tcaaagggac    600
acccactagg cgctacaggt cttgctcagt gtgcagaact ctgctggcag ctgagagggg    660
aagccggaaa agaggcaaag ttcctggtgc aaaggtggct ctgcngcata atttangcat    720
tggaggaact gtggttgtaa cactctacaa gatgggggttt tcccggaagc cgccagttcc    780
ttttagaact catcaaaatt gaagccngtt ccaaccaagc tctgcaagtn atnggtttaa    840
ngnaaaatct ngttttaaag gnggattgag aaggaaacnt naaagaggga angggggaaca    900
atttgtgaaa gaaaaatncg gngggaattt ttgcccttca aggggaaana atggccctgg    960
ggggtaaaag anggccaccc tggggtggtg ggat                                994
```

```
        <210> 609
        <211> 843
        <212> DNA
        <213> Homo Sapiens

        <400> 609
ggccaaaaaa anttattttna atttcctatt aancntcctc cncaaancat tatttnaccc     60
tatnncncnc ngantttnan aaantacctt tnntnttaaa aaacctngga aaaaaaataa    120
tngcaaatan ttaaccttnc ttgaaaangg aaatttntac caanggacng aaancnttnt    180
aattngaant naaattatan ttngaaancg gcnncngaaa ccaancttna tggtccaatt    240
atcctnaang agggnntttn annactaatn cccngatttt ccaatangga anccnnnttt    300
aaaantnttt tnattttaaa aataaccnng tntccaaccc cngatcnant tcctttnatt    360
tggattgggg aaaaaaatnc ngttccnnat accnngaann gcaaantttt taaatttta     420
accccccctan ttttaaaanc tatngaaaan tngattanng acttgaattg ccaaccctan    480
ttncnggcca ccngtgggcn tngtnttcct tacttantcc ccccaaggaa annccttaan    540
cngaanctcc nccaaaataa cccttaanta tccttggtaa ccaaancaaa acctttttng    600
tttacntant ccttgggatt taacgggtcc ccaatttnat ccngaaccca nttttcccccc    660
naaccatant taccatttta ccttggtaag gcncagtngt ttgcantncc gcaaancagt    720
antnttcccc nggcnctttc cccgancct tgggaaaaac gggatnggtc cccccccttaa    780
aaaacaacct tcccccncct ttggcccagg nnttnttccc gtctaaatcc gaacaataaa    840
aag                                                                  843
```

```
        <210> 610
        <211> 707
        <212> DNA
        <213> Homo Sapiens

        <400> 610
ctagtctcga gtttttttttt ttttttttaa cctttcctta tgagcatgcc tgtgttgggt     60
tgacagtgag ggtaataatg acttgttggt tgattgtana tattgggctg ttaattgtca    120
gttcagtgtt ttaatctgac gcaggcttat gcggaggana atgttttcat gttacttata    180
ctaacattag ttcttctata gggtgataga ttggtccaat tgggtgtgag gagttcagtt    240
atatgtttgg gattttttag gtantgggtg ttgagcttga acgctttctt aattggtggc    300
tgctttttagg cctactatgg gtgttaaatt ttttactctc tctacaaggt ttttttcctag    360
tgtccaaana gctgttcctc tttggactaa cagttaaatt tacaagggga tttagagggt    420
tctgtgggca aatttaaagt tgaactaaga ttctatcttg gacaaccagc tatcaccagg    480
ctcggtaggt ttgtcgcctc tacctataaa tcttcccact attttgctac atagacgggg    540
tgtgctcttt tanctgttct tangtanctc gtctggtttc gggggtctta gctttggctc    600
tccttgcaaa gttatttcta agttnaattc attatgcnca angtataggg gttagtcctt    660
gctcatatta tgcttggtta taattttcca ncttccccct tgcggta                  707
```

```
        <210> 611
```

```
        <211> 663
        <212> DNA
        <213> Homo Sapiens

        <400> 611
ccattttata atgcgcttta tttgattaaa gaatttgcct tctttgtata cactggaatg        60
ttatattccc tatgtatttt acagggttac aaaatgtctc tcattttaaa tattaccccca      120
aaagtaatct canaaaaaaa aggttttttg aaattaaact tgactttaa aaaatcatac        180
ggacaaacaa ctttcaaaca aaactggatt agtaggattt cttgcctgct taactaacat      240
gacanacttc ttgtcccagg cccttctcan aaaaacctca tgtggaaacc aagctanaga      300
taanaattct tccctgatgc agttagggga aagggaaagg ctagaaactt ctttggcaag      360
caattccaca cacagccatt tatgtgtgag tgctctgctt caagcacagt acgctctttg      420
cagggacggc cagatgttca gagtgggagt ggtactttttc aaccagctaa aagtgcagaa     480
gtcatctant cgtctgcctc ttcccactgc cagtgcctgc agccttgcag caactttttaa     540
ccaccccccta tgggactgga atnttgagtt aaaaagccaa ngctgaactg gctgacgctg      600
tantctccan tgaaaaggaa atgggatgaa atggaaaccg aaaaaccccc ngtnacntga      660
tga                                                                     663

        <210> 612
        <211> 621
        <212> DNA
        <213> Homo Sapiens

        <400> 612
cattttataa tgcgctttat ttgattaaag aatttgcctt ctttgtatac actggaatgt        60
tatattccct atgtatttta cagggttaca aaatgtctct cattttaaat attaccccaa      120
aagtaatctc anaaaaaaa ggttttttga aattaaactt gactttaaa aaaatcatacg       180
gacaaacaac tttcaaacaa aactggatta gtaggatttc ttgcctgctt aactaacatg      240
acaaacttct tgtcccaggc ccttctcana aaaacctcat gtggaaacca agctananat      300
aanaattctt ccctgatgca gttaggggaa agggaaaggc tagaaacttc tttggcaagc      360
aattccacnc acagccattt atgtgtgagt gctctgcttc aagcacanta cgctctttgc      420
agggacggcc anatgttcnn antgggagtg gtacttttca accagctaaa antgcanaag      480
tcatctantc gtctgcctct tcccactgcc agttgcctgc agccttgcag catcttttaa      540
ccacccctat nggactggaa tattgaatta taaacccngg ntgaactggc tgangctgtt      600
tctcccttga aaaggaaatg g                                                 621

        <210> 613
        <211> 637
        <212> DNA
        <213> Homo Sapiens

        <400> 613
catttnataa tgcgctttat ntgattaaan aatnngcctt ctttgtatac gcnggattgt        60
tatctcccct ntntattttnn ggggggttaca anttntcnct catttnaant atnnccccaa     120
tantntnctn aaaaaaaaga ggtttganga aattaaactt gactttaaa anatcatgng       180
gacaaacnac tttcaaacaa agctggatta gnaggatttc tngnctgctt aactaacatn      240
aaanacttct tgtcccaggc cctnctnaaa aaaacctctt gtggaaaccn agcnaaaaat      300
aananttctc ccctgatgca ntgggggggag anggagaggc taaaaacttc tntggcaanc      360
anttccacnc acngccattt ttntntnagt gcnctgctnc nancnnagta cgctctttgg      420
gnggacggcn anntnttnat agngggagtg gtnctttcaa ccagctaata ntgaagaaat      480
catctagtcg nctgcctctn cccactgcca gtgcctgcnt ccttgcaacn tcttttaacc      540
ccccctangg acnggattat nnagttaana ccgaggntga gctggntgac gctntctcct      600
ccatttgaaa angaaatgga taagatggaa ccgaaaa                                637

        <210> 614
```

```
        <211> 673
        <212> DNA
        <213> Homo Sapiens

        <400> 614
agattatgcc attgaggcta agaatagagt catttttgat ctaatttatg aatacgaaag        60
aaagagatat gaagatcttc ctataaatag caatccagtg tcttctcaga aacaaccagc       120
cttgaaggct acaagtggca aggaagattc tatttcaaat atagccacag aaataaagga       180
tggacaaaaa tctgggacag tgtcttctca gaaacaaccg gccttgaagg atacaagtga       240
caaggatgat tctgtttcga acacagccac agaaataaaa gatgaacaaa aatctgggac       300
agtgcttcct gctgttgaac agtgtttaaa caggagtctc tacagacctg atgctgttgc       360
acagcctgtg acagagaatg agttttcttt ggaatctgag attatttcaa aactatacat       420
cccaaagaga aagattattt ctccacgatc tataaaagat gtgcttcctc ctgttgaaga       480
ggctgttgac aggtgtctct acctactgga ccgttttgca cagcctgtga caaagggata       540
agtttgcttt ggaatctgag aatatttcag aaccatactt tacgaacaga aggactattc       600
tcaacaatct gcagaaaatt tagatgctgc atgtggcatt gacaaaacag aaaatggana       660
catgtttgaa gac                                                         673

        <210> 615
        <211> 714
        <212> DNA
        <213> Homo Sapiens

        <400> 615
cctctggcta tattcaaaac agaatctttc tcatcacttg aagccttcaa gcctggtggt        60
ttctcanaan acactgtcct agatttttct ccatccttgt tttctctggc tatacccaaa       120
acagaatctt cctcgtcact tgtacccttc aaggttggtg gtttctgana anacactttc       180
ctanatattt ctccatcctt ttttcctctg gttatattcg aaaaanaatc cttctcatca       240
cttgtagcct tcgaggctgg tttttttcga naagacactg tcctanattt ttctccatcc       300
ttgtttttctc tggctatact caaaacagaa ccttcctcgt cacttgtanc cgtcaaggct       360
ggtggtttct ganaanacac tgtcccanat ttttctccat cctttatttc tgtggctatg       420
ttcgaaacag aatctttctc atcagttgta gccttcaagg ntggttgttt ctgaaaanan       480
ctgtcccana ttttttctcca tcctttattt ctgtggctat nttcgaaaca gaatcttcct       540
cgtcagttgt accttcnagg ntggttgttt ctgaaaaaan actgtcccac actgtatcca       600
tcctttattt tntgttanct atatcnaagc aaaatctgtt ttgtcccttg ttaccntttg       660
aaggtnggtn gtttctgaaa aataanctgt tccanatttt cccaccaccc attt            714

        <210> 616
        <211> 688
        <212> DNA
        <213> Homo Sapiens

        <400> 616
cctctggcta tattcaaaac agaatctttc tcgtcacttg tagccttcaa gcctgatggt        60
ttctcanaan acactgttct anattttttct ccatccttttt tttctctggc tatattcaaa       120
acanaatctt cctcgtcacc tgtagccttc aaggctggtg gtttctgaaa anacactgtc       180
ctanatgttt ctccatcctt tctttctctg gttatatttg aaaaanaatc tttctcatca       240
cttgtagcct tcaaggctgc tttttttcga naanacactt caagcctggt ggttgctctg       300
aaaacactgt tctaaatttt tctccatcct tttttttctct ggctatattc aaaacanaat       360
cttcctcgtc acttgtagcc ttcaaggctg gtggtttctg aaaananact gtcctanatg       420
tttctccatc ctttctttct ctggttatat ttgaaaaana atctttctca tcacttgtan       480
ccttcaaggn tgctttttttc cganaanaaa cttcaagcct ggtggttgct cngaaaaaac       540
tgtcctaaaa ttttttctcca tccttttctt ctctnggcta tactcnaaac aaaatcntcc       600
tcgtcccttg ttncccttca anggtgggtg gtttctcgaa aaaaanactg tcctanaatt       660
ttcctccntc cctttttttc tctgggtt                                          688
```

```
<210> 617
<211> 721
<212> DNA
<213> Homo Sapiens

<400> 617
ttcgggcttc cacctcattt ttttcgcttt gcccattctg tttcagccag tcgccaagaa       60
tcatgaaagt cgccagtggc agcaccgcca ccgccgccgc gggcccagc tgcgcgctga       120
aggccggcaa gacagcgagc ggtgcgggcg aggtggtgcg ctgtctgtct gagcagagcg       180
tggccatctc gcgctgcgcc gggggcgccg gggcgcgcct gcctgccctg ctggacgagc       240
agcaggtaaa cgtgctgctc tacnacatga acggctgtta ctcacgcctc aaggagctgg       300
tgcccaccct gccccagaac cgcaaggtga gcaaggtgga gattctccag cacgtcatcg       360
actacatcag ggaccttcag ttggagctga actcggaatc cgaagttgga accccggggg       420
gccgagggct gccggtccgg gctccgctca gcaccctcaa cggcgagatc agcgccctga       480
cggccgangt gagatccaga tccgaccact anatcatcct tataccgacg gggaaacnga       540
agccatanaa ggcgtgggcg cttgcaccac ttccgtccca tccttgcggg tacctggtct       600
atgcngtggt ncctaaggac cttggaaaaa acgctccccc gtcgttgctt cctgggggaan       660
gggggcgttnc gctgcgcttc ggaacggggt tccttccaac ccgccggtct catttcttct       720
c                                                                        721
```

```
<210> 618
<211> 461
<212> DNA
<213> Homo Sapiens

<400> 618
ccaccancta anttattnnt ttaataacaa aaaaacancc ccacaaaact atngtaaaac       60
aatatttcca ntcggtnatc ntngtattnt acaatacaaa ncanttcccn caaaattctn       120
aaaancacca ancttnacca tttttttaaan tttctgcttt ncaaaaanta aaaacncnca       180
attgnantcc cacccccctaa attctctggt nactattagg tntncaaaaa gnaccnccn       240
ctccncncca ttgcctcanc cncancccca ggctgnatnc atttaagggc ncattggccg       300
ccaatcggnc tnntccnccc ncaaatccgg caaggcnctt ngggggnaaac ccacaaanca       360
cttattcccc ctngcccct gaatggctgg ggtccgccgg tccctggggn aggcnctcca       420
ccaacncaaa atgcaatcnt ccncagnaac ccntgccgcc t                           461
```

```
<210> 619
<211> 751
<212> DNA
<213> Homo Sapiens

<400> 619
cccgagggac cacagctggc agctccgggg atgccctcgg caaagcactg gcctcgatct       60
actccccgga tcactcaagc aataacttct cgtccagccc ttctacccc gtgggctccc       120
cccagggcct ggcaggaacg tcacagtggc ctcgagcagg agcccccggt gccttatcgc       180
ccatctacga cgggggtctc cacggcctgc agagtaagat agaagaccac ctggacgang       240
ccatccacgt gctccgcagc cacnccgtgg gcacagccgg cgacatgcac acgctgctgc       300
ctggccacgg ggcgctggcc tcaggtttca ccggcccat gtcactgggc gggcggcacg       360
caggcctggt tggaggcagc caccccgagg acggcctcgc aggcagcacc agcctcatgc       420
acaaccacgc ggccctcccc agccagccag gcaccctccc tgacctgtct cggcctcccg       480
actcctacag tgggctaggg cgancaggtg ccacngcggc cgccancgag atcaagcggg       540
aagagaagga ngacgangag aacacgtcag cggctganca ctcggaagaa ganaanaagg       600
aactgaaggc ccccgggccc ggaccattac ggaacaagtg ctgtcccttg naggagaaaa       660
actgaaggac cgggaaaagg cncatggcaa ttacncccg ggaaccggtg cccttccggg       720
atattaacna aggcttccgg gaactggggg c                                      751
```

```
<210> 620
<211> 556
<212> DNA
<213> Homo Sapiens

<400> 620
aatacaacgt ttaatcatct ggttgatcaa aaaatgcaat gctcagtcta ggaacagcag        60
caaaaatagc ganagacacg ggactttttat acaaaaaaat ttgttgctta caaaacatat       120
gcaaaaaaag cttaaaaaaa ccaaaaacca aaggcagcat ccttgctaat tttcatctac       180
attaanaaaa aaaaaatctt gtaactaatg tttttattttn ccttaaaaaa aatatttcgc       240
ttaggcacaa tttgctggtg gctttaaaaa aataagccag gtttccacag catcccccctt       300
gagtgatatn tttccatttc tccgctttttt atagttaagg catttttttnc tnctctgaca       360
aagtgtatgt tttgttgctt gctttcaggt tttgtttact ggaaaaaaaa aaaaatgccc       420
tgtcanccca ngcaanaggg ccaanatgca attcagggat ccntgggaca ggtccaaaat       480
gacccggggg ctgaaattcc gggacggggg aacaaggcnn tttaatngta ggccagggcc       540
canggaaccc tgaacc                                                       556


<210> 621
<211> 708
<212> DNA
<213> Homo Sapiens

<400> 621
ccacttnaat tccttttatnc ancaatatta tccnaaaagg aaaaatcagg atttacaaaa        60
acaatttaan tgcaatataa aaccctacta aatacaaata caattncaca aacncntatg       120
caacaaaaac ttgtttaaat ngttccttna atttnnacta cttaaaanca taggtntaaa       180
ggaaaaacnt ncaaactggt ccacttgggc ttnttaccag gcaaagnaac cctgcttncc       240
aaaaactnat atattccaaa ttcncggcat ntggnaatnt tnccatggac nctgnatctt       300
aacaaatgct atantnttta caaaactacn cccncaaaaa aaccccaagg aacctgcagg       360
ctaancccta tncttttaaa gggctnaagg aaccaaacct attttaancc tnttngtttg       420
cnccatgcaa aactttatgn aaaaccccca aactaggcta tttancnnct nccatnaatg       480
gnccccaaat catntnatnc tacggcataa acaacanctg ccctatttac ncggaacctg       540
caaanctcac aagnaatgtg aattngcnct ngggantcaa tgttnccggg tnaattatct       600
tggatnanaa ccnttttcta catnactatt gaaaaaacct gtggtttctt gcttttttaac       660
aaatnnggtg ttcctttgcc cccccccctt atttttcaag ggctgggt                     708


<210> 622
<211> 675
<212> DNA
<213> Homo Sapiens

<400> 622
atcacagtcc agagagtcct agaggaggac gagagcataa gancttgcct tagtgaagat        60
gcaaaagaga ttcagaacan aatagaggta gaagcagatg ggcnaacaga agagattttg       120
gattctcaaa acttaaattc aagaaggagc cctgtcccag ctcaaatagc tataactgta       180
ccaaagacnt ggaagaaacc aaaagatcgg acccgancca ctgaagagat gttagaggca       240
gaattggagc ttanagctga agaggagctt tccattgaca aagtacttga atctgancaa       300
gatntaatga gccagggggtt tcatcctgaa agagacccct ctgacctana aaaagtgaaa       360
gctgtggaag aaantggaga anaagctgag ccagtncgta ntggtgctga gagtgtctct       420
gagggtgaag gantagatgc tacttcaggc tccncagata gttctggtga tggggttacn       480
tntccatttn aaccngaatc ctggaagcct actgatnctg aaggtntgan gcnntntgac       540
ngggagttct gctggacttc cagttcatgc ctgcctggta tncttttnccc gagggcctgc       600
ctcctntcag tgatttggtt cttgacaaga tccnccntcc ccctttttgcc aatgccgaac       660
tctgggatcc ttcga                                                        675
```

```
      <210> 623
      <211> 713
      <212> DNA
      <213> Homo Sapiens

      <400> 623
gctaaacatt ttttaagta tgagtccttg tttaaaaga aaagattaaa acagaaaata        60
ttttctataa ataatacatg tattttggtt ttagtgctcc cgccctaagg tttgaagttt       120
acttttatcc agtacctttt tcctccatga tcaccttttt ttctctttcc cctctcccac       180
tcgtgcacac gtgggggttt ctgcgagaat tggccttgct gcactgtgat tggcgaanac       240
gtgaaacttt ttaaaaaaat acttaaattg tttcttttgt ttcattttgt gtatttgaag       300
ttttagttat cctcagactc ctcttctgct tcccgcagcc acgtgaagaa tgccgtgaca       360
gatttcagag ccacgccctt cccattctgc tctgcagggt ccttgctgct ctcccatttg       420
tagaaggcat cctcggagat cacctcctcg tcatatagac aatcaaaaaa catccgcagc       480
aaattggcag gttgatcaag ttttactatc gatgcttgta gtgcataaag tgctgcagtt       540
ccttctctgt atctgantct aggtacttga gtaagatcgg cactctctgc ttgataacag       600
cagtgtccac tctgaaggta naagaatcng gttattatag cttgcttaa caaacagcng       660
tcnttaaagc tctaaggaat gttangtgaa atncactgga tttcgtctaa att             713


      <210> 624
      <211> 554
      <212> DNA
      <213> Homo Sapiens

      <400> 624
cattcnagaa agatnttaca cacggagttt nctcantatt gggctcaacg ggaagctgac        60
tttacggana ctctgcttca agtaacgana gatattanaa ganaatgctg gancgtcgtt       120
tggctatctt cnaggatttg gttggtaaat gtgaccctcg agaanaagca gcgaaagaca       180
tttntgccac caaagttgaa actgaagaag ctactgcttg tttagaacta actttnatcc       240
aattaaagct gaattagcta aaaccaatgg agaattaatc tcnaccncnc acnanttcnc       300
ccagaganaa natgaatccg attcattgat tcaagagctt gagacatctg ntaaganaat       360
aattncacan aatctggaga attnnagaat tgatnaatat nattgatcnn tcgaagatac       420
tatcancgaa tttcagaacc tnangtctca tatggaaaac tcntttaaat gcnatgacaa       480
ggctgataca tcttctttaa taataaacaa taaattgatt tgttatgaaa cagttgaagt       540
acctaaggga cagc                                                        554


      <210> 625
      <211> 551
      <212> DNA
      <213> Homo Sapiens

      <400> 625
gactgcatgt tctcatttat ttatgggatc taaaaataaa atcaattgac ctcatgggca        60
tacanantaa aaaaatggtt accagtggct ggtaagggta ctgacggttg caggggggagg       120
tggggatggt taatgggtac aaaaacaaat aagatnaaaa gaatgattta atatctgata       180
gcacaatana ntgactataa tcaataataa cttacttgta tattttttaaa tgatctaaaa       240
aatgtaattg gattatctgt aattcaaagg aaaaatgctt gagggggatgg atacctcatt       300
ctccatgata cacgtntttc acattgatgc ctgtgtcaaa acatctcaca taccccgtaa       360
atatatacat gtactatgta ccacaaaatg tttacaaaat aagtganaca ttctaattaa       420
agactgaaat cttttttctaa ataatgtata tacatgtttt gtgatctgta cacacttatt       480
ctccaaatcc taactntant cccaacanat atnttaaatc cttgtttanc ngaataagtt       540
aaaaaaatcc t                                                           551


      <210> 626
      <211> 680
```

<212> DNA
<213> Homo Sapiens

<400> 626
atttggtaac aggattaaaa agaaattttt aattccttgt ctctcttctg atggctgaac   60
agaactgcgg tgtcaaatgg aaagcagcac acaagaattc ccttgcagac cttgatcttt   120
cgcanaaatg caaagacgcc tgagttatac aacttgcaat tattattttc tanacagaag   180
tgccaactgt tgtgctttcc agtgtatcag tggttgctac attctccttc ttgtcttcgg   240
gtttcatggc aggaaacaga agtacttcct tgatgttgtt ggagtccgtg agaaacatgg   300
cgactcgatc aatgcccatg ccccagccag ctgtgggggg cagcccatat tccagggcag   360
tacagaagtt ttcatctatg aacatggcct catcatcacc tgcagccttg ccttggcct   420
gttcttcaaa aanctgccgc tgccgcatgg gatcattcag ctcagtatac gcattgcata   480
tctctttctt catgacaaac agctcaaanc gctcagtcag acctctttaa ancggtgcca   540
tttaaccnaa gggccattat ctgtgggtga tcacagatga atgtnggatt gatgcaagtc   600
acttccanga actccccaac aancttgtca aggaacctgg ctgtggtcca angtggaagg   660
catccacanc ttttgccccc   680

        <210> 627
        <211> 753
        <212> DNA
        <213> Homo Sapiens

        <400> 627
acaaatatga acgtctgaag gcaaaccagg tagctactgg cattcggtac aatgaaagga   60
aaggaaggtc tgaactaatt gtcgtggaan aaggaagtga accctcagaa cttataaagg   120
tcttagggga aaagccagag cttccagatg gaggtgatga tgatgacatt atancagaca   180
taagtaacag gaaaatggct aaactataca tggtttcaga tgcaagtggc tccatgagag   240
tgactgtggt ggcanaagaa aaccccttct cantggcaat gctgctgtct gaagaatgct   300
ttattttgga ccacggggct gccaaacaaa ttttcgtatg gaaaggtaaa gatgctaatc   360
cccaagagag gaaggctgca atgaagacag ctgaagaatt tctacagcaa atgaattatt   420
ccaagaatac ccaaattcaa gttcttccag aaggaggtga aacaccaatc ttcaaacagt   480
tttttaagga ctggagagat naacgatcag agtgatggct tcgggaaagt ttatgtcaca   540
gagaaagtgg ctcaantnna acnaattccc tttgatgcct cnnaattacn cagttctccg   600
cagatggcag cccagcacaa tatggtggat gatggttctg gccaagtgga aatttggcgt   660
gtncaaaaca atggtaggat ccaagttgac cnnaactcct atggtgactc ccatggtggt   720
gactgctact tcatactcta cacctatccc tga   753

        <210> 628
        <211> 675
        <212> DNA
        <213> Homo Sapiens

        <400> 628
ggtgtttcca aaggcttta ataaggttaa aaaaaaaata aaatnccnct taaaaaataa   60
cncttancan ttaatgacat caaantcncn ttgactaaaa aaggaaaata ncaaccaatt   120
gttaaancca ccttaacata aaccttatng caattntaca cntcttttga acncaatcta   180
taaaaaaaaa aataactncc anggcattac aacttttnct ctggcatntt aaaaaacaac   240
tctnactaat ggctaatgca ttataaaatt ncctatctna caaatcttnc taaattatgc   300
atagtatttt acttttnaaa ggtcntaaaa aaaatataaa tcanttncca taaaanctaa   360
tatnggccca taacaaaant tccctncagg ttattttaat ntnttaacnt aaaaaaaacnc   420
cagntgaaaa aaaattncaa nccaaaacta accnttaaaa aataggcntt nggttnaggt   480
taatttttt tttttttttt ttgnaaanaa antcnctntt gcccagnctg gattgtggtg   540
gcnccaatcc tggctcactg caacctcagc ctcctgggtt caagcaattt ncctgtctca   600
gccttccaan ttccngggaa tacaggggtn cnccaccacn cccagctaaa tttttttttgt   660
tttttttant aaaag   675

```
<210> 629
<211> 677
<212> DNA
<213> Homo Sapiens

<400> 629
aagatcagcg atatcacgcg tcccccggag catcgcgtgc aggagccatg gcgcgggagc      60
tataccacga agagttcgcc cgggcgggca agcaggcggg gctgcaggtc tggaggattg     120
agaagctgga gctggtgccc gtgccccaga gcgctcacgg cgacttctac gtcggggatg     180
cctacctggt gctgcacacg gccaagacga gccgaggctt cacctaccac ctgcacttct     240
ggctcggaaa ggagtgttcc caggatgaaa gcacagctgc tgccatcttc actgttcaga     300
tggatgacta tttgggtggc aagccagtgc agaatagaga acttcaagga tatgagtcta     360
atgactttgt tagctatttc aaaggcggtc tgaaatacaa ggctggaggc gtggcatctg     420
gattaaatca tgttcttacg aacgacctga cagccaagan gctcctacat gtgaagggtc     480
gtanagtggt gagagccaca gaattcccct tagctgggac agtttcaaca agggtgactg     540
cttcatcatt gaccttggca ccgaaattta tcanttggtg tggttcctcn tgcaacaaat     600
atgaacgtct gaaggcaaac cangtancta ctggcattcg gtncaatgaa aggaaaggaa     660
ggtctgaact aattgtc                                                    677


<210> 630
<211> 665
<212> DNA
<213> Homo Sapiens

<400> 630
gagacagagt ctctgttgcc caggctggag tgtggtggcg caatcctggc tcactgcaac      60
ctcagcctcc tgggttcaag caattttcct gtctcagcct ccaagtagc agggactaca      120
ggcgtgcacc accacgcgca gctaattttt ttgtattttt agtaaaggcg aggtttcgcc     180
atgttggcca ggctggtctc gaaatcctga ccccagtgat ctgcctacct catcctctca     240
aagtgctggg attacaggtg tgagccaccg cgcccagcct taattttcaa aagacaaata     300
agcaaaaagc ttttcccgtt cctctcccaa aacagcaatg agataactgc cttgtaatgt     360
ttgtttgctt tttacaaata ccaatttacc acttgctgga atcccagccc aggaaccagc     420
ctgtgaatgt gggtggctca tggccctgtt ttatgatgac aattggtgtc ctcttgtctc     480
ttccagaagg gtctgtctca aggtacattt tggcanactt caaagattct tttttctcaa     540
cttcattagc atctttgcca atccaaataa atatctgttc ccaagcatct agtaacatga     600
catcatcttc agctaaatca tcctgggtga actctccctg gaatctcttc aataacaaat     660
ctccc                                                                 665


<210> 631
<211> 698
<212> DNA
<213> Homo Sapiens

<400> 631
ctgaggagct ggtggtcttt gaggatttga atgtatttca ctgccaggaa gaatgtgtga      60
gcttggatcc tactcaacaa ctcacgtcag agaaggaaga tgacagcagt gtcggggaaa     120
tgatgttact ggtcaatggc agtaatcctg aaggtgaaga tcctgagagg gaacctgtan     180
aaaatgaaga ttatagagaa aagtcttcag atgatgatga aatggattct tccttggtct     240
ctcagcagcc tccgataac caggaaaagg aacgactaaa tacatccatt ccacaaaaaa     300
ggaaaatgag aaatctgtta gttaccattg agaatgatac tcctctagag gaactctcaa     360
aatatgtaga catcantatt attgccctta ctcgaaatcg gaggacaagg agatggtaca     420
cttgtccact gtgtgggaaa cagtttaatg aaagttctta cctcatttcc caccagagga     480
cccacactgg agaaaaaccc tatgactgtn ntcactgtgg gaaaagcttc aatcatnaaa     540
caaacctcaa taaacatgag cgaattcnta caggagagaa accttattcc tgttctcagt     600
gtggaaaaaa cttccgtcng aattctcatc ggagtcgtcc tgaaggaatc catntaacgg     660
```

```
agaagatatt aagtgtccan aatgtgggaa aacctccc                              698
```

```
      <210> 632
      <211> 466
      <212> DNA
      <213> Homo Sapiens

      <400> 632
atcacaaatt gtaaatatta ttgaaattga ttgcaaattt agatcacata caaatgagag      60
tctgacattc aactgttttc ctatattcca aagtaaacaa ttcctttcaa cactcaagac     120
ttaaacaggt attcttagag ggttatatga attgctatca gaagctgttg gctaacaagc     180
cagtaatttg gttctttcac canaacacag ttccagataa gcatctttgc actatttctc     240
aantatgaat ccccatgtgg ggggaaaacg gatatacttt caatagacac aagtcactct     300
ttgccttcca agtaagcana ctccagattc atcttcaaag tgttgggaaa ngggatctgt     360
gacctgtnca ttatcatata acttcaaaaa ggaaagctcc ttantccaaa aagcctanat     420
gctgaggtat agcccttgaa atgttttctt ccctgtnaat ttccta                    466
```

```
      <210> 633
      <211> 734
      <212> DNA
      <213> Homo Sapiens

      <400> 633
cacatacagt ctttgtttta atgtttattg gtagaaacag atcttcaatg catactttgt      60
gtttatataa actctacatt ctcttaaagg ttttcgtttt gttttcactg gagattttta     120
gcctccaagt gaacttaaca tattgcctat gcatctgatt ctttatanac ttttanattt     180
taaaactaaa tttganaaac catgcatact gtatacctta tttaataatc caaanaattg     240
tttgcacttt caaaaaagtt acaaaaaggc tgaacacaag ttaaataacc tatatgatgt     300
aaattttcca tttctgaata cttttcagt attatatatt gcttgctgtc taataagtta      360
gattgtcaga nacgcttcag taaattatct ctactttaaa attatatctg aatcccttt      420
ctctganatg aacttgccaa tattaaacat tgtgccatat gcagtattan cccaaaagct     480
taaataagaa ccaaacttgt agactgaata ttttaacctt aaaattatat acctatatat     540
ncacctatgg tatgctgcat attaaattta acatttcaag taacatatat atagcaaaca     600
ttcagccaaa tactctttca tgaaaagata ctgtccttaa aataaaaagt tantgaaaag     660
cttatttaga ccnaatgtct aaatataant nctaagccta tgaaacttga anctaaagtc     720
tgctgtncta ttta                                                        734
```

```
      <210> 634
      <211> 822
      <212> DNA
      <213> Homo Sapiens

      <400> 634
ctcctgtgct tacacctgta gaaaacacc agagcagaga gtatctcaag tgatgaagag       60
gttcatgaat ctgtggattc agacaatcag caaaataaaa aagttgaagg tggatatgaa     120
tgtaaatatt gtacttttca aactccagat ctaaatatgt ttacttttca tgtggattcg     180
gaacatccca atgtagtgct aaattcatcc tatgtttgtg tcgaatgcaa ttttcttacc     240
aaaaggtatg atgcactttc tgagcataat ctgaaatatc acccaggaga agagaatttt     300
aagttgacta tggtgaaacg taataaccag acaatctttg aacaaacaat aaatgatctg     360
acttttgatg gtagttttgt taaagaggag aatgcagagc aagcagaatc tacagaagtt     420
tcttcttcgg gaatatctat cagtaaaact cctatcatga aaatgatgaa aaataaagtg     480
gaaataaac ggattgcagt tcatcataac tcagttgagg acgttcctga agagaaagag     540
aatgaaatca aaccagaccg tgaagaaatt gtagaaaatc caagttcttc agcttctgaa     600
tctaatacaa gtacttccat tgtaaacaga atacatccaa gtactgccag cacggtagtg     660
acccagcagc agttcctccc tggattgggc ccaggtgata actgctgtnt ctgctccgcc     720
```

```
agaattctaa tttgattccc naagtcttaa tccctgttna tancatcccc cctacaatgc    780
tgcnttggat aacaacccc tttttactta acccctacan cc                        822
```

```
        <210> 635
        <211> 819
        <212> DNA
        <213> Homo Sapiens
```

```
        <400> 635
acccatttct aacaattttt actgtaaaat ttttggtcaa agttctaagc ttaatcacat    60
ctcaaagaat agaggcaata tatagcccat cttactagac atacagtatt aaactggact   120
gaatatgagg acaagctcta gtggtcatta aacccctca gaaagtctaa gattcagaat    180
gtctccatca tattagaaga aaaatgtact gtattaaaat ttaaattgca tttttacaag   240
ttgttttta attagtgttc tatttacatt gcanaacttc caccaactgc agtagtttaa    300
ctttggcaca acattaagtt ccatttcttt tgggtattgg atcctgcttt ttgagtgtgt   360
atgccccaaa acgttttcaa tgtcatcaaa gattgggcaa attcacagta aatcagacat   420
cttgagttga agaattgatt ctccttcaac gttttaggca gatttcagtc atctgattta   480
gacagcttcc gtttcacatg tcgtggaagt cccaagtgtc actatcatct gtttcttctt   540
catcctcttc ctggtcatca ataacttcat cttcctcctc attttcctca aataattcta   600
tacctaattc tgatcttctc tgtctttctg caaaccactc tctgacctgc tcatancccа    660
tatgtgattt gttaacaaat tcatcaaggt cttgctcatt aaaaaacttg tgcttcaggt   720
tataatcctt aanttttgcc gttccagttt taaattttat gaatnaatgg tcccctggtc   780
cccagttgtt aattccttt ggctcctcca aggcgccca                           819
```

```
        <210> 636
        <211> 704
        <212> DNA
        <213> Homo Sapiens
```

```
        <400> 636
aaaaagttat ttatttattc ttttttttt ttttttttt ttggtaaggt tgaatgcact    60
tttggttttt ggtcatgttc ggttggtcaa anataaaaac taantttgan anatgaatgc   120
aaaggaaaaa aatattttcc aaantccatg tgaaattgtc tcccatttt tggcttttgg    180
gggggttcag tttgggttgc ttgtctgttt ccgggttggg gggaaagttg gttgggtggg   240
agggancag gttgggatgg agggagttta caggaagcan acagggccaa cgtcnaagcc    300
naattcctgg tctgggcac caacgtccaa ggggccaca tcnatnatgg gcaggcggga     360
ggtcttggtg gttttgtatt caatcactgt cttgccccag gctccggtgt gactcgtgca   420
nccatcgaca gtgacgctgt aggtgaancg gctgttgccc tcggcgcgga tctcgatctc   480
gttggaaccc tggagganca gggccttctt gaggttgcca gtctgctggt ccatgtaggc   540
cacgctgttc ttgcantggt angtgatgtt ctgggagcct cggtggacat caggcgcagg   600
aaggtcacct ggatgccaca tcngcanggt cggaaccctg gccgccatac cccaactggg   660
aatccatcng tcatgctctc cccgaaacaa aacatcctct tgtt                    704
```

```
        <210> 637
        <211> 693
        <212> DNA
        <213> Homo Sapiens
```

```
        <400> 637
gaaagcaaat ttcttttaat ganaactcaa aattaaactt caaagggacc caacgtcata    60
cttccattca gggacttgat acaaaaaatt tagtttgaac tgctattagc aggtggcagg   120
agccaccttc aaatgaatct tcaaattgga aaatactgct tcaccacctg ttggggataa   180
nttgcaaatg gaataattta gtatggtttg tagctatttt gatnaccacc tcgcctgnat   240
accttcccat aaccactctg ctggtcacca cctcttccac aagctcttcc tgcaaatcct   300
cctctaaatc cccactgttg ctgttgctga tattgtncct tcgacatggc tacttttatt   360
```

```
tcacatttac taaaaccaac attgtggtat ttctttccca ttatcttctt cactggttct      420
tcttccttaa aggtaataaa gcaaaaccca cgcctcttat tggtcttgtt gtccatgggg      480
agctctatgg attccacctc accaaaacca ccaaagtact cccttatttt ctcttcaggt      540
gtatctggan aaaggccacc ancnaaaatt ttttaaccgg ctcttttgtt tccatggctt      600
tgggcctttt angatcaatc accttcccca ttcaatttat gttcttttttg gatccatgaa      660
cctttntcta cnccctcccg aattccttaa ata                                   693
```

        <210> 638
        <211> 619
        <212> DNA
        <213> Homo Sapiens

        <400> 638
```
gcactctgaa gttagatcct atcacagggc gatcaagggg ttttggcttt gtgctattta       60
aagaatcgga gagtgtanat aaggtcatgg atcaaaaaga acataaaattg aatgggaagg      120
tgattgatcc taaaagggcc aaagccatga aaacaaaaga gccggttaaa aaattttttgt      180
tggtggcctt tctccagata cacctgaaga gaaaataagg gagtactttg gtggttttgg      240
tgaggtggaa tccatagagc tccccatgga caacaagacc aataagaggc gtgggttctg      300
ctttattacc tttaaggaag aagaaccagt gaagaagata atggaaaaga aataccacaa      360
tgttggtctt agtaaatgtg aaataaaagt agccatgtcg aaggaacaat atcagcaaca      420
gcaacagtgg ggatctanag gaggatttgc angaagagct cgtggaagan gtggtggccc      480
cactcaaaac tggaaccang gatatantna ctattggaat cnaggctatg gcaactatgg      540
atatnacagc ccaggttacc gtggttntgg aagatatgac tncactggtt acnacaacta      600
ctatggatat ggtgattat                                                  619
```

        <210> 639
        <211> 694
        <212> DNA
        <213> Homo Sapiens

        <400> 639
```
cggcggcgcc attaaagcga ggaggangcg agagcggccg ccgctggtgc ttattctttt       60
ttagtgcagc gggagagagc gggagtgtgc gccgcgcgag agtgggaggc gaagggggca      120
ngccaggggan aggcgcagga gcctttgcag ccacgcgcgc gccttccctg tcttgtgtgc      180
ttcgcgaggt acagcgggcg cgcggcancg gcggggatta ctttgctgct agtttcggtt      240
cgcggcagcg gcgggtgtat tctcggcggc agcggcggag acactatcac tatgtcggag      300
gancanttcg gcggggacgg ggcggcggca ncggcaacgg cggcggtagg cggctcggcg      360
ggcgaacang angganccat ggtggcggcg acacangggg cancggcggc ggcgggaacn      420
gaccgggacc ggggggcggaa ccgcntctgg angctccnaa gggggcnncg ccnaatccga      480
aggggcgaaa attgaccccg tatgaaccaa gaagatgaat ggaaaatgtt tatangaagc      540
cttanctggg acactnccca gaaagatctg aaggactact tttccnaatt ttgggtgaaa      600
ttgttaaact gccctcttga aattttnatn ctatcccngg ggcnatcaaa ggggtttttg      660
gcttttttcc tattttaaac aaatcccgaa aaat                                 694
```

        <210> 640
        <211> 728
        <212> DNA
        <213> Homo Sapiens

        <400> 640
```
cgccactgcn gcaggaggcg tgaggggata aaaacattca gatggcagat cacagttttt       60
cagatggggt tccttcagat tccgtggaag ctgctaaaaa tgcaagtaac acagaaaagc      120
tcacagatca ggtgatgcag aatcctcgag ttctggcagc tttacaggag cgacttgaca      180
atgtccctca caccccttcc agctacatcg aaactttacc taaagcagta aaaagaagaa      240
ttaatgcatt gaaacaactt caggtgagat gtgctcacat agaagccaag ttctatgaag      300
```

```
aggtacatga cttggaaaga aagtatgcag cgctatacca gcctctcttt gacaagagaa      360
gagaatttat caccggcgat gctgaaccaa cagatgcgga atcggaatgg cacagtgaaa      420
atgaagagga agagaaattg gctggagaca tgaaaagtaa agtagtcgtc acagaaaaag      480
cagcggcaac ggctgaagag ccagatccca naggaattcc agagttctgg tttaccatct      540
tcagaaatgt ggacatgctg agtgaattan tccaggaaat atgatgaacc aatcttgaaa      600
acacctgcag gatnttaaag ttgaaatttt ctgaccctgg acagcctatg tcttttgtgt      660
tagaattcca ctttgaaccc cacgactact ttaccaactc agtcctgaca aaaaccttac      720
cagatgaa                                                              728
```

          <210> 641
          <211> 732
          <212> DNA
          <213> Homo Sapiens

          <400> 641

```
acctaattag atagaagttc aggaatttct atttcttttg ggttgatgaa ccacaggcta      60
gcataagtcc actgtcaata aatgtttgtt gtggccagac ctccataaaa gagatattcc      120
ctgtgttcac aagttccctg aagcttaggt tttgagagaa tattgttgag tcactaggca      180
gggctcacat aggaaactgg caatcacctc tgaaactgct tcacagacac ctgcttttcc      240
tgctctgttc ctcanacttc tcctcttcaa gcgtattccc cccacaacaa ggacagcagc      300
ttggactaca tatctggctg atgatgtaat aaaaagatta ggcatggggg tttcctaagc      360
cacaattcag ggccactctg caccaacaga gataagcacc caggtggaag ccccccttcc      420
ccgagcctca tacattgtca tcatcttcta tggcctcccc agtgaagtac agcacagccc      480
gcgggactat ccgctcacgg aaaaagtgtc caatttcaaa atcagaagct aatgtgaatt      540
caaaatcttc atccagtgat ctccatcccc ggatgctttc caatggattg aagaaattga      600
aaaaggactc attgggtact gtttcgtaat tgttctaaca gtgcctcaac cttatgcttc      660
tgctttncnt ggaaggtntt gaaagtaaca ttcttncctt cttccaantc aattattnac      720
ccccgttcac aa                                                         732
```

          <210> 642
          <211> 582
          <212> DNA
          <213> Homo Sapiens

          <400> 642

```
gcttttcttc ttcctcctct tctgattctg gctcttgctt tatttgtggc tgcctgcgcc      60
tctcagcctc ttgttccatc ctctggagct ctgcatctgg atctggatgc ccttctgcca      120
naaggcgctg cctgatttcc tcaagctcct ccttctctct cttcctatct cgttcatctg      180
cttccatttc cttttctcta tcacgcaacc ttttctgaaa agcacttcct ctgtaatatt      240
tggggtcatc tctatcatca tcatagtctt ctaanaattc ttttagtcgt ttagcttctt      300
tggccatttc tcttcttctt tcttcttctc tttcagcttc tttctcatat tcccgggttt      360
tctttcgttc tctgatttcc caattcttaa ggcgctcttg ataancagct tctttctctc      420
gganttttct ttcaagtttt cttcgttcgt atgcatcttc ttcatcttct tctcggtccc      480
gtttttttgtc ttttctcttt tctcgctccc gttcctctct cnctctctct ctcgctcccg      540
ttctcgttct cgctctcntt ctctctctct ctctctttcc cg                        582
```

          <210> 643
          <211> 784
          <212> DNA
          <213> Homo Sapiens

          <400> 643

```
aagaaaagct caagtttcca agtctcttaa gggagcgatt aggcatgtca gctgatccag      60
ataatgagga tgcaacagat aaagttaata aagttggtga gatccatgtg aagacattag      120
aagaaattct tcttgaaaga gccagtcaga acgtggaga attgcaaact aaactcaaga      180
```

```
cagaaggacc ttcaaaaact gatgattcta cttcagggag caagaagctc ctccactatc      240
cgtatcaaaa ccttctctga ggtcctggct gaaaaaaaac atcggcagca gggaagcaga      300
gagacnaaaa agcnaaaagg gatacaactt gcatcaagct aaagattgat agtgaaatta      360
aaaaaacagt agttttgcca cccattgttg ccagcagagg acaatcagag gagcctgcag      420
gtaaaacaaa gtctatgcag ggaggtgcac atcaagacgc tggaaganat taaactggag      480
anggcactga gggtgcagca gagctctgag agcagcacca gctccccgtc tcaacacgag      540
gccactccag ggggcnaggc ggctgctgcg aatcaccnnn agaaccggga tgaaagaaga     . 600
gaagancctt ccgggaaggg aatgaagttg attctcagag cngtattaga acngaagcta      660
aagangctcc gggtgagaac nccggggttg acctccctaa aattccagtc cagagatgtn      720
agacctgaaa gagaaccccct gccganaccg ccgggaaagg ganaaatccg tcttgacccc      780
cttc                                                                    784
```

        <210> 644
        <211> 749
        <212> DNA
        <213> Homo Sapiens

        <400> 644

```
cctacatcag ttttatttaa aacacaaaca agtatttctc tttctgtaag ggcaaatggt       60
tcaaataatg cggaacacga aacattgact aatacaagtg ctttaaatat gaaacaaaat      120
tatttttttaa aaaagcaaaa naataaagaa tatatacaaa agggacctgn aatctgtaag      180
gtgattccaa aaacnaaata antagaaaat ccatggtgaa acctgaacat tctacctctg      240
ctttggagaa gggctatcat acaacattca gtcagctgaa natggattgg tanaggtgtg      300
tctatacata aacttcagtc atttttgctt gtgcanaatc atcccaatct tcccaanact      360
gaatgggcag tcctgtggct ttcttccttt tccatattcc caacaaggct acgtgaagtt      420
caactcttga tgagccgctt acaacagcag ttccttaggg agccaacatg acaggtgggt      480
canatttccc tatgagaaac aaaactggcc acctacagca aaatatcaaa atgggtaagt      540
ccttccttcc tcttcctcct gattatatac aacatatctc ctttcaagac tattatttcc      600
atcatgctta ttccttcaca aatctaaacc ttgaggtgat atgaaggaaa ccancntcaa      660
aaaaaagaaa actcaattcc gaaatgaana aaactgggcn nggtatncaa tacnccccan      720
aacatctcca tatccctggc ccagttacc                                        749
```

        <210> 645
        <211> 751
        <212> DNA
        <213> Homo Sapiens

        <400> 645

```
agactttcct acatcagttt tatttaaaac acaaacaagt atttctcttt ctgtaagggc       60
aaatggttca ataatgcgg aacacgaaac attgactaat acaagtgctt taaatatgaa      120
acaaaattat tttttaaaaa agcaaaagaa taaagaatat atacaaaagg gacctggaat      180
ctgtaaggtg attccaaaaa cgaaataagt agaaaatcca tggtgaaacc tgaacattct      240
acctctgctt tggagaaggg ctatcataca acattcagtc agctgaagat ggattggtag      300
aggtgtgtct atacataaac ttcagtcatt tttgcttgtg cagaatcatc caatcttcc      360
caanactgaa tgggcagtcc tgtggctttc ttcctttttcc atattcccaa caaggctacg      420
tgaagttcaa ctcttgatga gccgcttaca acagcagttc cttaggancc caacatgaca      480
ggtgggtcag atttccctat gagaaacaaa actggncacc tacagcaaaa tntcaaaatg      540
ggtaagtcct ccttcctcct tcctcctgat tatntacaac atatctcctt tcaagantat      600
tatttccatc atgcttattc cttcccaaat ctaaaccttg aaggtgattt gaagggaaac      660
cnccatccnn aaaaagaaaa acccattccc aaattgaaaa aaaactnggc agggtataca      720
atacacccc canaaactcn ccaattttcc c                                      751
```

        <210> 646
        <211> 760
        <212> DNA

<213> Homo Sapiens

<400> 646
```
cctacatcag ttttatttaa aacacaaaca agtatttctc tttctgtaag ggcaaatggt      60
tcaaataatg cggaacacga aacattgact aatacaagtg ctttaaatat gaaacaaaat     120
tattttttaa aaaagcaaaa gaataaagaa tatatacaaa agggacctgg aatctgtaag     180
gtgattccaa aaacnaaata agtagaaaat ccatggtgaa acctgaacat tctacctctg     240
ctttggagaa gggctatcat acaacattca gtcagctgaa natggattgg tagaggtgtg     300
tctatacata aacttcagtc atttttgctt gtgcanaatc atcccaatct tcccaanact     360
gaatgggcag tcctgtggct ttcttccttt tccatattcc caacaaggct acgtgaagtt     420
caactcttga tgagccgctt acaacagcag ttccttagga gccaacatga caggtgggtc     480
aaatttccct atganaaaca aaactggcca cctacagcaa aatatcaaaa tgggtaantc     540
cttccttcct cttcctcctg attatataca acatatctcc tttcaagact attattccat     600
catgcttatt ccttcacaaa tctaaacctt gaagtgatat gaangaaacc nccntccaga     660
aaagaaaact cnantcanaa atgaaaaaaa ctggcaggta tncaatacac cccaaaacnt     720
ctcaatntcc tggcacanta caatccattg ttctgctaca                          760
```

<210> 647
<211> 1041
<212> DNA
<213> Homo Sapiens

<400> 647
```
caaaggcgac agctgcccat tccgtcactg tgaagctgca ataggaaatg aaactgtttg      60
cacattatgg caagaagggc gctgttttcg acaggtgtgc aggtttcggc acatggagat     120
tgataaaaaa cgcagtgaaa ttccttgtta ttgggaaaat cagccaacag gatgtcaaaa     180
attaaactgc gctttccatc acaatagagg acgatatgtt gatggccttt tcctacctcc     240
gagcaaaact gtgttgccca ctgtgcctga gtcaccagaa gaggaagtga aggctagcca     300
actttcagtt cagcagaaca aattgtctgt ccagtccaat ccttcccctc agctgcggag     360
cgttatgaaa gtagaaagtt ccgaaaatgt tcctagcccc acgcatccac cagttgtaat     420
taatgctgca gatgatgatg aagatgatga tgatcagttt tctgaggaag gtgatgaaac     480
caaaacacct accctgcaac caactcctga agttcacaat ggattacgag tgacttctgt     540
ccggaaacct gcagtcaata taaagcaagg tgaatgtttg aattttggaa taaaaactct     600
tgaggaaatt aagtcaaaga aaatgaagga aaaatctaag aagcaaggtg agggttcttc     660
aggagtttcc aagtctttta ctccaccctg agcccgttcc aagtcctgaa aaagaaaatg     720
tcaggactgt ggtgaaggac agtaactctc tccaacaaac aanggagaaa gaanccttgg     780
gtagattgag tcctactgan agacggggga aacgaaaant tcagcaagcg gtgacaagtg     840
atcctccaat aaagcgttac cctgcacaaa ggctagggaa aaaaanttaa ancccanaaa     900
actaacattg acaaaaccac caaagaaagc tcaagnttcc aagtcccta agggaccgan     960
taagcatgtc aaccggatca anataatgng gntgcaacag ttaaagntta aaaaattggg    1020
gaaattcagt taaaacattt g                                             1041
```

<210> 648
<211> 810
<212> DNA
<213> Homo Sapiens

<400> 648
```
ccctacatca gtttttattta aaacacaaac aantatttct ctttctgtaa gggcaaatgg      60
ttcaaataat gcggaacacn aaacattgac taatacaant gctttaaata tgaaacaaaa     120
ttattttttta aaaaagcaaa agaataaana atatatacaa aagggacctg naatctgtaa     180
gctgattcca aaaacnaaat aantanaaaa tccatggtga aacctgaaca ttctacctct     240
gctttggana gggctatca tacaacattc antcagctga aaatggattg gtaaaggtgt     300
gtctatacat aaacttcant cattttttgct tgtgcaaaat catcccaatc ttcccaaaac     360
tgaatgggca gtcctgtggc tttcttcctt ttccatattc ccaacaaggc tacntgaant     420
```

```
tcaactcttg atnagccgct tacaacagca gttccttagg agccaacatg acaggtgggt     480
caaatttccc tatgaanaaa caaaactggc cacctacagc aaaatatcaa aatgggtaag     540
tccttccttc ctcttcctcc tgattatata caacatatct cctttcaaga ctattatttc     600
catcatgctt attccttcac aaatctaaac cttgaggtga tatgaaggaa accancatca     660
agaaaagaaa accaattcan aaatgaanaa aactggcagg tntacaatac accccananc     720
atctcaatat ccctggcaca gttacaattc agtgttctgc tacagcccat aaaataaata     780
ttggcagctt gaataancnc atttttttccc                                    810
```

```
        <210> 649
        <211> 656
        <212> DNA
        <213> Homo Sapiens


        <400> 649
cccnacatca nttttattta aaacacaaac aattatttct cttnctgtaa gggcaaatgg      60
ttcaaataat gcgnaacaca aaacnttgac taatacaatt gctttaaata tnaaacaaaa     120
ttatttttta aaaaancaaa aaaataaaaa atatntacaa aagggacctg aaatctgtaa     180
nctnatncca aaaacaaat aattaaaaaa tccatggtna aacctnaacn tnctacctct      240
gcttnggaaa agggctatca tacaacntnc antcanctna aaatggatng gtaaaggtnt      300
ntctatacat aaacttcant cattttngct tgtgcaaaat cancccaatc tncccaaaac     360
tnaatgggca ntcctgtggc ttnctncctt tnccatatnc ccaacaaggc tacttnaatt     420
tcaactcttn ataanccgct tacaacagca ntncttagn anccaacatn acaggtgggt      480
caaattcccc tataaaaaac aaaactggcc ncctacanca aaatatcaaa atgggtaatt     540
ccttcctncc tctnccncct nattatatac aacatttctc ctttcaaaac tattattncc     600
atcatgcttn ttcctncaca aatctaaacc ttgangtgat ttgaaggaac cacctc         656
```

```
        <210> 650
        <211> 645
        <212> DNA
        <213> Homo Sapiens


        <400> 650
gaacttcccn acnncatttt tatttaaaac ncaaacaatt nttncncttn ctntangggc      60
aantggtnca aatantgcgn aacncaaaac tttnactaat acaattgctt taaatntaaa     120
ncaaanttat tttttaaaaa accaaaaaaa taaaaaaatnt ttccaaangg gacctgaaan    180
ctntaaccta atcccaaaaa caaaataatt aaaaaanccn nggtnaancc tnaacntnct     240
nccnctnctt tgnaaaaggg ctatcanaca acntncattc ncctaaaaat gnatnggtaa     300
aggtttttct anacataaac ttcattcatt ttggcttntn caaaancacc ccaanctncc     360
caaaactnaa tgggcnncct ntggcttnct ccctttccca tntncccaac aaggctactt     420
naattncaac ncttnataac ccccttacaa caccattncc ttagnaccaa cataacaggt     480
gggtcaaatt nccnataaa aaacaaanct ggccccctncc ccaaaatncc caaatgggta    540
ttcctncctn ccctcccccc ngnatatata caacatntcc cctttcanaa atatattccc     600
ccacgcttat tccncccaaa nntaancctt gaagttattt aagga                    645
```

```
        <210> 651
        <211> 780
        <212> DNA
        <213> Homo Sapiens


        <400> 651
ccttgacctc ccaaagtgct gagattacag gcctgagcca ctgcaccttg ccttccttac      60
ctctttttctc cgacattttt atgtttctaa cattgaactc taaggaagct ggtgaacaaa     120
cacgccatat gtatgcagaa cacttaacag aattatgcta tgttgtctgt ttttgtttgt     180
atttcttgtc cttgctgaag attgacttga aatcttaaac taagttctcc ctctttatag     240
gcggtgacag tgatcctcca ttaaagcgta gcctggcaca gaggctaggg aagaaagttg     300
```

```
aagctccaga aactaacatt gacaaaacac caaagaaagc tcaagtttcc aagtctctta    360
aggagcgatt aggcatgtca gctgatccag ataatgagga tgcaacagat aaagttaata    420
aagttggtga gatccatgtg aagacattag aagaaattct tcttgaaaga gccagtcaga    480
aacgtggaga attgcaaact aaactcaaga cagaaggacc ttcaaaaact gatgattcta    540
cttcaggagc aagaagctcc tccactatcc gtatcaaaac cttctctgag gtcctggctg    600
aaaaaaaaca tcngcagcag ggaactgaag agacaaaaaa gccnaaagga tacaacttgc    660
atcaagctaa agattgatag tgaaattaaa aaaaacagta attttngcca cccattgttg    720
ccngcagaag acaatcanaa gaacctgcag gtaaaacaaa ntctatgcag ggaggtgccc    780
```

```
          <210> 652
          <211> 518
          <212> DNA
          <213> Homo Sapiens


          <400> 652
gnacttncct acatcatttt tatttaaaac acaaacaatt ntttcncttt ctgtangggc     60
aaatggttca aataatgcgg aacacaaaac nttnactaat acaattgctt taaatntnaa    120
acaaaattat tttttaaaaa ancaaaaaaa taaaaaatnt ttncaaangg gacctgaaat    180
ctntaanctn atnccaaaaa caaaataatt naaaaatcca nggtgaaacc tnaacntnct    240
nccnctgctt tggaaaaggg ctntcataca acnttcattc ncctaaaaat ggattggtaa    300
angtttttnt atacataaac tncattcatt tttgcttntg caaaatcanc ccaanctncc    360
caaaactnaa tgggcantcc tntggctttc tncctttccc anatncccaa caaggctact    420
tnaatttcaa cncttnataa nccgcttaca acancatttc cttaggancc aacatnacgg    480
tgggtcaaat cccctataaa aaacaaaact ggccncct                            518
```

```
          <210> 653
          <211> 490
          <212> DNA
          <213> Homo Sapiens


          <400> 653
gttaataaag ttggtgagat ccatgtgaag acattagaag aaattcttct tgaaagagcc     60
agtcagaaac gtggagaatt gcaaactaaa ctcaagacag aaggaccttc aaaaactgat    120
gattctactt caggagcaag aagctcctcc actatccgta tcaaaacctt ctctgaggtc    180
ctggctgaaa aaaacatcg gcagcaggaa gcagagagac aaaaaagcaa aaaggataca    240
acttgcatca agctaaagat tgatagtgaa attaaaaaaa cagtagtttt gccacccatt    300
gttgccagca gaggacaatc agaggagcct gcaggtaaaa caaagtctat gcagggaggt    360
gcacatcaag acgctggaag aaattaaact ggagaaggca ctgagggtgc agcagagctc    420
tgagagcagc accagctccc cgtctcaaca cnaggccact ccaagggcaa ggcggctgct    480
gcnaatcccc                                                          490
```

```
          <210> 654
          <211> 359
          <212> DNA
          <213> Homo Sapiens


          <400> 654
cccanctccn ttttanttna aancccaacc aattnttccc cttccgntan gggcaatngn     60
tccaattatn ncgaacncca aaccttnaan natnccaatt ncttaaatnt taaaccaaat    120
tnnttttta aaaagccaaa naattaagaa ttttttccaa agggaacnng aatccnttag    180
ggtaatccca aaaccaaatt agttaaaaat ccctggntaa acccnaacnt tccnccnccn    240
ccttggaaaa agggnnnccn ncnaccttcc atncncntaa aaatgaatgg ntaaagnttt    300
ttcnnncctt aacntccatc ctttttgnct nttccaaanc ctccccancc tccccaaaa    359
```

```
          <210> 655
```

```
        <211> 611
        <212> DNA
        <213> Homo Sapiens

        <400> 655
tgaaaaaaaa catcggcagc aggaancaga aagacnaaaa agcaaaaagg atactacttg        60
catcangcta angattgata gtgaaattaa aaaaacagta tttttgccac ccattgttgc       120
cancagagga caatcanagg agcctgcagg taaaannaag tctatgcagg aggtgcacat       180
caagacgctg gaagaaatta aactggagaa ggcactgagg gtgcagcana gctctgagag       240
cagcaccagc tccccgtctc aacacnaagc cactccatgg gcnangcggc tgctgcgant       300
cnccnaaaga ncagggatga angaagagaa gaaccttcag gaaggaaatg aatttgattc       360
tcagancatt attataactg aagctnnana ngcttcnggt gagaccacng ganttgacat       420
cactaaaatt ccagtcaaga gatgtgagac catgagagag aagcacatgc acaaaacanc       480
nngagaggga aaaatcagtc ttgacacctc ttcggggaga tgtagcatct tgcggnaccc       540
aantggcaga gaaaccagtg ctcactgctg tgccaggaat cacncggcac ctgaccaagc       600
ggcttcccac a                                                            611


        <210> 656
        <211> 634
        <212> DNA
        <213> Homo Sapiens

        <400> 656
ccnacatcag ttttatttaa aacacaaaca agtntttcnc tttctgtnag ggcaaatggt        60
tcaaataatg cggaacacna aacattgact aatacaantn ctttaaatat gaaacaaaat       120
tatttttaa aaaancnaaa naataaagaa tatntncaaa agggacctgg aatctgtnag       180
ctgattccaa aaacnaaata antttaaaat ccntggtgaa acctgaacat tctacctctg       240
ctttggaaaa gggntatcat acaacattca gtcngctgaa aatggattgg taaaagtntn       300
tctatacata aacttcagtc atttttgctt gtncaaaatc atcccaatct tcccaaaant       360
gaatgggcag tcctgtggct ttcttccttt tccatattcc caacaaggnt acntnaantt       420
caactcttga nnanccgctt acaacagcag ttccttagga ncccatgac aggtgggtcn       480
aatttcccta tnaaaaacaa aactgggccc tacagcaaaa tatccaaatg ggtnagtcct       540
tccttcctct tcccctgant atatacacat atctcctttc aanaatanta tttccccatg       600
cttattcctt cccnaatcta aaccttgaag tgat                                   634


        <210> 657
        <211> 958
        <212> DNA
        <213> Homo Sapiens

        <400> 657
gaaagaaaag catcatgtaa aaatgaaagc caagagatgt gccactcctg taatcatcga        60
tgaaattcta ccctctaaga aaatgaaagt ttctaacaac aaaaagaagc cagaggaaga       120
aggcagtgct catcaagata ctgctgaaaa gaatgcatct tccccagaga aagccaaggg       180
tagacatact gtgccttgta tgccacctgc aaagcagaag tttctaaaaa gtactgagga       240
gcaagagctg gagaagagta tgaaaatgca gcaagaggtg gtggagatgc ggaaaaagaa       300
tgaagaattc aagaaacttg ctctggctgg aataggggcaa cctgtgaaga aatcagtgag       360
ccaggtcacc aaatcagttg acttccactt ccgcacagat gagcgaatca acaacatcc       420
taagaaccag gaggaatata aggaagtgaa ctttacatct gaactacgaa agcatccttc       480
atctcctgcc cgagtgacta agggatgtac cattgttaag cctttcaacc tgtcccaagg       540
aaagaaaaga acatttgatg aaacagtttc tacatatgtg ccccttgcac agcaagttga       600
agacttccat aaacgaaccc ctaacagata tcatttgagg agcaagaagg atgatattaa       660
cctgttaccc tccaaatctt ctgtgaccaa gatttgcaga gacccacagg actcctgtac       720
tgcaaacaan acaccgtgca cgggctgtga cctgcaaaaa gtacagcaga gctggaggct       780
gaggagctnc gagaaattgc aaccantaca anttccaaag cacgtngaac cttgattccc       840
```

```
agaataactt ganggggtggg cccaaccttg cccaagaaaa ccaccngtga aancaancca        900
acggagccct antnggcttt gatttgggaa tttgggaaan gaatncaagg gaggngag           958
```

        <210> 658
        <211> 816
        <212> DNA
        <213> Homo Sapiens

        <400> 658
```
gggagggaaa gacaaaacgt atttattcca ggccaggtct taaaatgcac actgcacggt         60
tccctgttgt tatcagcacc agtaaggaaa gaacgtgcct taacggcagc cccacccaga        120
gcctgctgcg tggctgctgt gaggctcccc atgaatccac gcagtcttct tcctcactgg        180
tgcagttggt gaggtttct accctcacag caaagggatc cttaactata aattcacggt         240
atgcagagaa gaggacagaa tctgatttac tgattgttcc tcatttaaac catgacttaa        300
tctctatctt aggatttaac tatctttatt ttctggttaa aattttttaaa aaaagtgggg      360
agagggtgag agtcgtaagg ggcaatagca atagagatta cactgtgctg acacagagac        420
taaattctag tcagagtgaa gaccatataa aaggccggct gatggtttaa aggaagtaac        480
tacatggagt ctaatcgaga cattcatgan ttacatctca ttattagcct tagtaatgta        540
agaaaacaat tctcaacaaa actgggagtc cacagttgtc aagtatgctt tctcangcac        600
gggtaggtaa aagtctggan aaatgggttc tctccatgcc caatgacaaa gcaagacggt        660
cctaggtttg aagttaaaaa caggtcccaa ttgcccgggc ggtatccgcc agctcacagc        720
tgaatttaan catggaaatc caatggaaaa attgggganat acnggcacat tcanaaggct       780
ggtcctttga cttatctcca naacccgggt actggc                                  816
```

        <210> 659
        <211> 726
        <212> DNA
        <213> Homo Sapiens

        <400> 659
```
tgagaaaagt ggtacaaata ctgggaaaaa cctgctcttc tgcgttaagt gggagacaat        60
gtcacaagtt aaaagctctt attcctatga tgcccctcg gatttcatca attttttcatc       120
cttggatgat gaaggagata ctcaaaacat agattcatgg tttgaggaga aggccaattt        180
ggagaataag ttactgggga agaatggaac tggagggctt tttcagggca aaactccttt        240
gagaaaggct aatcttcagc aagctattgt cacacctttg aaaccagttg acaacactta        300
ctacaaagag gcagaaaaag aaaatcttgt ggaacaatcc attccgtcaa atgcttgttc       360
ttccctggaa gttgaggcag ccatatcaag aaaaactcca gcccagcctc agagaagatc        420
tcttaggctt tctgctcaga aggatttgga acagaaagaa aagcatcatg taaaaatgaa        480
agccaagaga tgtgccactc ctgtaatcat cgatgaaatt ctaccctcta agaaaatgaa        540
agtttctaac ancacaaaga agccagagga agaaggcagt gctcatcaag atactgctga        600
aaagaatgca tcttccccaa gagaaagcca agggtagaca tactgtgcct tgtatgccac        660
ctgcanagca gaagtttcna aaangtactg angagcaang aatctggaga agagtatgaa        720
aaatgc                                                                    726
```

        <210> 660
        <211> 824
        <212> DNA
        <213> Homo Sapiens

        <400> 660
```
aggatttaac tatctttatt ttctggttaa aattttttaaa aaaagtgggg agagggtgag       60
agtcgtaagg ggcaatagca atagagatta cactgtgctg acacagagac taaattctag        120
tcagagtgaa nacccatata aaaggccggc tgatggttta aaggaagtaa ctacatggag        180
tctaatcgag acattcatga gttacatctc attattagcc ttagtaatgt aagaaaacaa        240
ttctcaacaa aactggagtc cacagttgtc aagtatgctt tctcaggcac gggtaggtaa        300
```

```
aagtctggan aaatgggttc tctccatgcc caatgacaaa gcaagacggt cctaggtttg      360
aggttaagan caggtcccat tgccgggcgg tatccgcagc tcacagctga ntttagcagt      420
ggaatcgagt ggagaatttg gggagataca ggcncagtca gaggctggtc acttgacttt      480
atctccagac cctggtactt gcgtattgga tttgccttat gcaccagttc tctccgtagc      540
ctggccanct cctctttttt ctgctcttcc tcctgtagtc tggcctcctc caactgctgg      600
gctttctggg cttctacctc agccattctc ttctccagct ccctgccgct ctttggctct      660
ctctcagtag cccactgaaa angtccctga acnaaaaaaa ccanaaanng gccctcacaa      720
ctgatttcnt ctctttcttg gggaaccaag ggccctgaa aaaanaaacg gtgtttggaa        780
caaaccntga aacaagcngc ctccttctgc ctgtcccaat tcct                       824
```

        <210> 661
        <211> 399
        <212> DNA
        <213> Homo Sapiens

        <400> 661

```
ggtttgnagg gaaaaanaaa actttttttt cccagnccag ttcttaaant nccccnngcn       60
nggtcccctn tnttttttcnc ccccattaag gaaaaaactt gcntnancgg nagccccccc     120
caaaacctnc tgcttggctg ctttaaggnc cccataannc cccccatnnt cctcccccac      180
tggtncattg gtnaggtttc ctcccccccn ccaaaggnnt ccttacntat aaatcccngg      240
tttncaaaaa aaaananaaa accaatttcn gatnntcccc cttnaancca gnacttaatc      300
cctntctnag gattnaacaa ccttttttn cgggttaaaa tttttaaaaa aattngggaa       360
anggttaaat ccttaggggg aatnccnata aaaattacc                             399
```

        <210> 662
        <211> 826
        <212> DNA
        <213> Homo Sapiens

        <400> 662

```
gtcaaatgct tgttcttccc tggaagttga ggcagccata tcaagaaaaa ctccagccca       60
gcctcagaga agatctctta ggctttctgc tcagaaggat ttggaacaga aagaaaagca      120
tcatgtaaaa atgaaagcca agagatgtgc cactcctgta atcatcgatg aaattctacc      180
ctctaagaaa atgaaagttt ctaacaacaa aaagaagcca gaggaagaag gcagtgctca      240
tcaagatact gctgaaaaga atgcatcttc cccagagaaa gccaagggta gacatactgt      300
gccttgtatg ccacctgcaa agcagaagtt tctaaaaagt actgaggagc aagagctgga      360
gaagagtatg aaaatgcagc aagaggtggt ggagatgcgg aaaaagaatg aagaattcaa      420
gaaacttgct ctggctggaa tagggcaacc tgtgaagaaa tcagtgagcc aggtcaccaa      480
atcagttgac ttccacttcc gcacagatga gcgaatcnaa caacatccta ngaaccagga      540
ggaatataag ggaagtgaac tttacatctg aactacgaaa gcatccttca tctcctgccc      600
gaantgacta aggggatgtt ccattgttaa gcctttcaac ctgtcccngg gaaagaanag      660
aacntttgat gaaacagttt ctacatatgt gccccttgcc cngcaagttg aagacttccn      720
taancgaacc ctnactgatt tcttttgang aaccagaang gntgattttn ccctgtttcc      780
ctccaatctt ctgtgaacaa gatttggccg aanacccccg aacccc                     826
```

        <210> 663
        <211> 770
        <212> DNA
        <213> Homo Sapiens

        <400> 663

```
gggaaagaca aaacgtattt attccaggcc aggtcttaaa atgcacactg cacggttccc       60
tgttgttatc agcaccagta aggaaagaac gtgccttaac ggcagcccca cccanagcct      120
gctgcgtggc tgctgtgagg ctccccatga atccacgcag tcttcttcct cactggtgca      180
gttggtgagg ttttctaccc tcacagcaaa gggatcctta actataaatt cacggtatgc      240
```

-342-

```
anagaanagg acagaatctg atttactgat tgttcctcat ttaaaccatg acttaatctc      300
tatcttagga tttaactatc tttattttct ggttaaaatt tttaaaaaaa gtggggagag      360
ggtgagagtc gtaaggggca atagcaatag agattacact gtgctgacac agagactaaa      420
ttctagtcag agtgaagacc catataaaag gccggctgat ggtttaaagg aagtaactac      480
atggagtcta atcgagacat tcatgagttn catctcatta ttagccttag taatgtaaga      540
aaacnattct caacaaaact ggagtccaca gttgtcaant ntgctttctc aggcacgggt      600
aggtnaaaat ctgganaaat gggttctctc catgcccaat gacaancaan anggtcctag      660
gtttgaagtt aaaaacangt cccattgccg gcggtatccg cagctcacag ctgaatttac      720
cngtggaatc aantggaaaa tttgggaaaa tacnggccca atcaaaaggt                 770
```

```
        <210> 664
        <211> 593
        <212> DNA
        <213> Homo Sapiens


        <400> 664
gaaganctga gcagcacagc actggtgaag aagagctgcc tggcggagct cctccggctt       60
tacaccaaaa gcagcagctc tgatgaggag tacatttata tgaacaaagt gaccatcaac      120
aagcaacaga atgcagagtc tcaaggcaaa gcgcctgagg agcagggcct gctacccaat      180
ggggagccca gccagcactc ctcggcccct cagaagagcc ttccagacct cccgccaccc      240
aagatgattc cagaacggaa acagcttgcc atcccaaaga cggagtctcc agagggctac      300
tatgaagagg ctgagccata tgacacatcc ctcaatgagg acggagaggc tgtgagcagc      360
tcctacgagt cctacgatga anaggacggc agcaagggca agtcggcccc ttaccantgg      420
ncctcgccgg aggccggcat cganctgatg cgtgacgccc gcntctgcgc cttcctgtgg      480
cgcaagaaag tggctgggac agtgggccaa gcagctctgt gtcatcnagg acaacaggct      540
tctgtgctnc naatcctcca aggaccccng ccctcagctg gacgtgaacc tac             593
```

```
        <210> 665
        <211> 1024
        <212> DNA
        <213> Homo Sapiens


        <400> 665
aagagattga agcaaatgaa tggaagaaga aatacgaaga gacccggcaa gaagttttgg       60
agatgaggaa aattgtagct gaatatgaaa agactattgc tcaaatgatt gaagatgaac      120
aaaggacaag tatgacctct cagaagagct tccagcaact gaccatggag aaggaacagg      180
ccctggctga ccttaactct gtggaaaggt cccttttctga tctcttcagg agatatgaga      240
acctgaaagg tgttctggaa gggttcaaga agaatgaaga agccttgaag aaatgtgctc      300
aggattactt agccagagtt aaacaagagg agcagcgata ccaggccctg aaaatccacg      360
cagaagagaa actggacaaa gccaatgaag agattgctca ggttcgaaca aaagcaaagg      420
ctgagagtgc agctctccat gctggactcc gcaaagagca gatgaaggtg gagtccctgg      480
aaagggccct gcagcagaag aaccaagaaa ttgaaggaac tgacaaaaat ctgtgatgag      540
ctgattgcaa agctgggaaa gactgactga gacactcccc ctgttagctc aacagatctg      600
catttggctg cttctcttgt gaccacaatt atcttgcctt atccaggaat aattgcccct      660
ttgcaganga aaaaaatata cttaanaaaa gcacatgcct actgctgcct gtcccgcttt      720
gctgccaatg caacagccct ggaagaaaac cctatanggn tgcatagtct aaaaagggag      780
ttgtngactn gacagtgctg ggagcctnct agtttccccc cnatgaaagg ttcccttagg      840
ctgctgagtt tggggtttgt gatttaacct taagtttgtt ttaaagtcca ncttaacttt      900
cccaaattgt gtttaaaatt tgtaacnccc cctttggggt cttcccaaca accggtccga      960
ttttttttggn gatcggttta acccttttaa tttttagta nccagtgggg tttaatttag     1020
ggga                                                                  1024
```

```
        <210> 666
        <211> 734
        <212> DNA
```

<213> Homo Sapiens

<400> 666

```
gagacaagat cttgctgtca cccaggatgg agtgcagtgg catgatcatg gctcactgca        60
gccttgacct cccaggctcc cacctcagcc tcccaagtag ctgggaccac aggcacgtgc       120
caccatgccc agctaatttt tattttggta nanacaaggt ttcaccatgt tgcctaggta       180
ggtttcaaac tcctggactc aagtgatcct cctgcctcgg ccttccacag tgttgggatt       240
acaggaataa gccactgtgc ccggcccttt ttctcttctg taacagantt tattactgcc       300
tagctagcag gttatttggc cctcacatgt gttgaggcaa actctatact atattcttac       360
tctccanagt tccaaaatcc tttattttta aanaaaaata aacaaacata cttcattctg       420
cccagtatat tctcttgatc tgtacaagct acgattttaa ttctctttgg gagaggaagc       480
atctgttaag ttcgaatggg ggatatttcc tcataacggt catggctgan aagccaggac       540
aattatcact taacgaaggt cctttggtgc tccctgtgca tcagcttcat tcactggggt       600
caggttctta aggggtctct tccaccaatg tgctagggaa gggctgccat cacctctgtt       660
taacacatag ctactttctt aaaccnataa gcttaaaaaa gangactatg gaattaccaa       720
tggaaggcnt ataa                                                         734
```

<210> 667
<211> 592
<212> DNA
<213> Homo Sapiens

<400> 667

```
gttatgaana cctttccaaa ttcatttgta tttctgttaa atttatttt tacttttaga         60
gtggctatca ttataatgta atttaaaatt atatttgtaa aagtgactat tggagtgagt       120
acgaattttg tttatanatc tatgataaat gcattctccc tntaggaggt agaanagtat       180
acagctgtnt ataataagct tcgctatgaa catacatttc tcaagtcaga atttgaacac       240
cagaaggaag agtatgcacg tnttttagat gaangaaacn ataaactatg aatcagagat       300
ngcaanactg gaggaagatn aagaagaact acgtanccag ctgcttaatg tngatctcac       360
anaagacagc aaacgagtgg aacaacttgc tcgagaaaaa gtctatttgt gtccaaaatt       420
aagangttta gaggctgaag taccngaatt aaaggctgaa naggagaatt ctgangctca       480
ggtggaaaat gcccaaanaa tacacgtgcg gcagttggct gagatgcacg ctacagtcag       540
atccctggag gctgacaanc aatcanctaa tttacgggca naacgcttgg aa              592
```

<210> 668
<211> 373
<212> DNA
<213> Homo Sapiens

<400> 668

```
aaaaaaaaat taagctcttt aattatgtgc acacagattt tagaaaaggt agccttttgt        60
atatanatac ctttacattc tttaggntga nttttaaatt gtcatctttt ttcaactaca       120
gttttgtnt atagtaaacc anaanatgtg tntggaccct gttatggnca agcatctcaa       180
agatgaagan agaattaatg atagttatat ttcactcaaa atgccaaaaa aaaaaattca       240
acaaagtaaa aatttttaaaa cttgactcta actagttcct ttttgtttta cattctcaaa      300
ccattgtnaa atattctaaa tatctctgaa aatttctctt ttaatgcttc acttgtntaa       360
tcttaaaatc ctg                                                          373
```

<210> 669
<211> 661
<212> DNA
<213> Homo Sapiens

<400> 669

```
cacacctggt ggtcctgaag acagcccagg acccagggat ctcccccagc cagagtctgt        60
```

```
gtgcggaaag ttccagaggc ctcagtgcag gctccctgtc ggagagtgca gttgggcccg      120
tggaggcatg ctgcctggtc atcctggctg cagagagcaa ggtcgctgcg gaggagcttt      180
gctgtctgct aggccaggtc ttccaggttg tttacacgga gtccaccatc gactttctgg      240
acagagcgat atttgatggg gcctctaccc cgacccacca cctgtccctg cacagcgatg      300
actcttctac aaaagtggac attaaggaga cctacgaggt ggaagccagc acttttctgct     360
tccctgaatc tgtggatgtg ggtggtgcat caccccacag caagaccatc agtgagagcg      420
agctgagcgc cagcgccact gagctgctgc aggactacat gctgacgctg cgcaccaagc      480
tgtcatcaca ggagatccag cagtttgcag cactgctgca cgagtaccgc aatggggcct      540
ctatccacga nttctgcatc aacctgcggc agctctacgg ggacagccgc aagttcctgc      600
tgcttggtct gaagcccttc atccctgaaa angacagcca gcacttcnag aacttcctgg      660
a                                                                     661
```

```
        <210> 670
        <211> 401
        <212> DNA
        <213> Homo Sapiens


        <400> 670
aaattattca cattgcagta aacttctttt taaggtctct gaaagttaca ataggaacat       60
catgtgcaaa actgacagcc gtccaagggc ccagccgaca ggactggctc tccctgcccg      120
ctcggccggg ccctccccga gcggggacac actgcagggc ttggctgaac cctggtggac      180
aaggcaaana nccttccacc ccgcactgag gctcgtgtcc ctcggcagct ccctgctcct      240
tcacagtaaa ngacctgggc cgcccggggc catctgcacc gggcgcctct ccctggccac      300
caccaagggc tgacacgcag gtctgggcag ctccttctgg gaaggcctat gacgactgcg      360
ccgaaggtgt gggtgccccc ccatccactg tccatcatgc c                         401
```

```
        <210> 671
        <211> 1347
        <212> DNA
        <213> Homo Sapiens


        <400> 671
aagatcagcg atatcacgcg tccccggag catcgcgtgc aggagccatg gcgcgggagc        60
tataccacga agagttcgcc cgggcgggca agcaggcggg gctgcaggtc tggaggattg      120
agaagctgga gctggtgccc gtgccccaga gcgctcacgg cgacttctac gtcggggatg      180
cctacctggt gctgcacacg gccaagacga gccgaggctt cacctaccac ctgcacttct      240
ggctcggaaa ggagtgttcc caggatgaaa gcacagctgc tgccatcttc actgttcaga      300
tggatgacta tttgggtggc aagccagtgc agaatagaga acttcaagga tatgagtcta      360
atgactttgt tagctatttc aaaggcggtc tgaaatacaa ggctggaggc gtggcatctg      420
gattaaatca tgttcttacg aacgacctga cagccaagan gctcctacat gtgaagggtc      480
gtanagtggt gagagccaca gaattcccct tagctgggac agtttcaaca agggtgactg      540
cttcatcatt gaccttggca ccgaaattta tcanttggtg tggttcctcn tgcaacaaat      600
atgaacgtct gaaggcaaac caggtagcta ctggcattcg gtacaatgaa aggaaaggaa      660
ggtctgaact aattgtcgtg gaanaaggaa gtgaaccctc agaacttata aaggtcttag      720
gggaaaagcc agagcttcca gatggaggtg atgatgatga cattatanca gacataagta      780
acaggaaaat ggctaaacta tacatggttt cagatgcaag tggctccatg agagtgactg      840
tggtggcana agaaaacccc ttctcantgg caatgctgct gtctgaagaa tgctttattt      900
tggaccacgg ggctgccaaa caaattttcg tatggaaagg taaagatgct aatccccaag      960
agaggaaggc tgcaatgaag acagctgaag aatttctaca gcaaatgaat tattccaaga     1020
atacccaaat tcaagttctt ccagaaggag gtgaaacacc aatcttcaaa cagtttttta     1080
aggactggag agatnaacga tcagagtgat ggcttcggga aagtttatgt cacagagaaa     1140
gtggctcaan tnnaacnaat tccctttgat gcctcnnaat tacncagttc tccgcagatg     1200
gcagcccagc acaatatggt ggatgatggt tctggccaag tggaaatttg gcgtgtncaa     1260
aacaatggta ggatccaagt tgaccnnaac tcctatggtg actcccatgg tggtgactgc     1320
tacttcatac tctacaccta tccctga                                         1347
```

```
<210> 672
<211> 3441
<212> DNA
<213> Homo Sapiens

<400> 672
atgtttctaa cattgaactc taaggaagct ggtgaacaaa cacgccatat gtatgcagaa         60
cacttaacag aattatgcta tgttgtctgt ttttgtttgt atttcttgtc cttgctgaag        120
attgacttga aatcttaaac taagttctcc ctctttatag gcggtgacag tgatcctcca        180
ttaaagcgta gcctggcaca gaggctaggg aagaaagttg aagctccaga aactaacatt        240
gacaaaacac caagaaaagc tcaagtttcc aagtctctta agggagcgat taggcatgtc        300
agctgatcca gataatgagg atgcaacaga taaagttaat aaagttggtg agatccatgt        360
gaagacatta gaagaaattc ttcttgaaag agccagtcag aaacgtggag aattgcaaac        420
taaactcaag acagaaggac cttcaaaaac tgatgattct acttcaggag caagaagctc        480
ctccactatc cgtatcaaaa ccttctctga ggtcctggct gaaaaaaaac atcggcagca        540
ggaagcagag agacaaaaaa gcaaaaagga tacaacttgc atcaagctaa agattgatag        600
tgaaattaaa aaaacagtag ttttgccacc cattgttgcc agcagaggac aatcagagga        660
gcctgcaggt aaaacaaagt ctatgcaggg aggtgcacat caagacgctg aagaaatta         720
aactggagaa ggcactgagg gtgcagcaga gctctgagag cagcaccagc tccccgtctc        780
aacacgaggc cactccaagg gcaaggcggc tgctgcgaat ccccaaaaga acagggatga        840
aagaagagaa gaaccttcag gaaggaaatg aatttgattc tcagagcatt attataactg        900
aagctaaaga agcttcaggt gagaccacag gagttgacat cactaaaatt ccagtcaaga        960
gatgtgagac catgagagag aagcacatgc acaaacaac aggagaggga aaaatcagtc       1020
ttgacacctc ttcggggaga tgtagcctct tgcaataccc aagtggcaga gaaaccagtg       1080
ctcactgctg tgccaggaat cacacggcac ctgaccaagc ggcttccac aaagtcatcc       1140
cagaaggtgg aggtagaaac ctcagggatt ggagactcat tattgaatgt gaaatgtgca       1200
gcacagacct tggaaaaaag gggtaaagct aaacccaaag tgaacgtgaa gccatctgtg       1260
gttaaagttg tgtcatcccc caaattggcc ccaaaacgta aggcagtgga gatgcacgct       1320
gctgtcattg ccgctgtgaa ccactcagct ccagcagtgt cctacaggaa cccccagcca       1380
aaaaggcagc tgtggctgtt gtcccgcttg tctctgagga caaatcagtc actgtgcctg       1440
aagcagaaaa tcctagagac agtcttgtgc tgcctccaac ccagtcctct tcagattcct       1500
cacccccgga ggtgtctggc ccttcctcat cccaaatgag catgaaaact cgccgactca       1560
gctctgcctc aacaggaaag cccccactct ctgtggagga tgattttgag aaactaatat       1620
gggagatttc aggaggcaaa ttggaagctg agattgacct ggatcctggg aaagatgaag       1680
atgaccttct gcttgagcta tcagaaatga ttgatagctg aagggtggta gtgaggacac       1740
tttaaaaaaa aatcgccaaa aaactggact tagtttcatc tattgtaaca tttacctgag       1800
atgatcattt ctttagtcta gaatttgccc caaatcagaa gtatacctct gaattatctg       1860
tatgtgtcct ggattccttg gggtcagatt tttaaagtta ctttataacc attttgtcca       1920
tttgatgcca ttgtttatca tcttttgaga aaaaagttct gtcataccct tctctccaca       1980
aaaaagagac tgagagggag atcaagtgaa agggtgcaag cgaacttagt gactccttga       2040
ggtgtttgtc agttttggct tttttcttct ttgttgtatt ctttatgtat tgtcttgatg       2100
tacttaatat tacctgagtt tgaaatggat gaagacagct gctaccatta aggaccaaat       2160
tttatgctac cactaaacaa aaatacccac tcagtctgtg ttaaattgta tgtctttta        2220
aaggtattta aagattcaac taagctttaa agagggctga gcagctcagg aagcctgtaa       2280
tgtgggcata actctttgga cctgatcttg atgcttctgc tgctctgtta gcctctgaag       2340
agcaatatct aatttattat tactgtaatt ttttaaaagg cttttaaagtg cctcagggt        2400
cccctgaaac taatttctta tttctgggat tccctggatt cattatatga gatggtgaca       2460
tgattagagg aattcttttt tagtatgaaa attgtccctt ttcttcttca gtacttgcct       2520
ccttgctggc attgaattaa cacagggaca aaatttggtt aatttttta ttctaactct         2580
cccaacaaac ccctgttgcc cagtatttgt ttggtggcct ttaaccacct gagggaaaaa       2640
atgagcttat tcaagctgcc aatatttatc tatgggctgt agcagtacac tgaattgtac       2700
tgtgccaggg atattgagat gctctggggg tgtattgtat acctgccagt tttcttcatt       2760
tctgaattga gttttcttt cttgatgttg gtttccttca tatcacctca aggtttagat         2820
ttgtgaagga ataagcatga tggaaataat agtcttgaaa ggagatatgt tgtatataat       2880
caggaggaag aggaaggaag gacttaccca ttttgatatt ttgctgtagg tggccagttt       2940
```

```
tgtttctcat agggaaatnt gacccacctg tcatgttggc tccctaagga actgctgttg    3000
taagcggctc atcaagagtt gaacttcacg tagccttgtt gggaatatgg aaaaggaaga    3060
aagccacagg actgcccatt cagttttggg aagattggga tgattttgca caagcaaaaa    3120
tgactgaagt ttatgtatag acacaccttt accaatccat nttcagctga ctgaatgttg    3180
tatgatagcc cttctccaaa gcagaggtag aatgttcagg tttcaccatg gatttttctac   3240
ttatttcgtt tttggaatca ccttacagat tccaggtccc ttttgtatat attctttatt    3300
cttttgcttt tttaaaaaat aattttgttt catatttaaa gcacttgtat tagtcaatgt    3360
ttcgtgttcc gcattatttg aaccatttgc ccttacagaa agagaaatac ttgtttgtgt    3420
tttaaataaa actgatgtag g                                              3441
```

        <210> 673
        <211> 1016
        <212> DNA
        <213> Homo Sapiens

        <400> 673

```
gtcaaatgct tgttcttccc tggaagttga ggcagccata tcaagaaaaa ctccagccca      60
gcctcagaga agatctctta ggctttctgc tcagaaggat ttggaacaga aagaaaagca     120
tcatgtaaaa atgaaagcca agagatgtgc cactcctgta atcatcgatg aaattctacc     180
ctctaagaaa atgaaagttt ctaacaacaa aaagaagcca gaggaagaag gcagtgctca     240
tcaagatact gctgaaaaga atgcatcttc cccagagaaa gccaagggta gacatactgt     300
gccttgtatg ccacctgcaa agcagaagtt tctaaaaagt actgaggagc aagagctgga     360
gaagagtatg aaaatgcagc aagaggtggt ggagatgcgg aaaaagaatg aagaattcaa     420
gaaacttgct ctggctggaa tagggcaacc tgtgaagaaa tcagtgagcc aggtcaccaa     480
atcagttgac ttccacttcc gcacagatga gcgaatcaaa caacatccta gaaccagga      540
ggaatataag gaagtgaact ttacatctga actacgaaag catccttcat ctcctgcccg     600
agtgactaag ggatgtacca ttgttaagcc tttcaacctg tcccaaggaa agaaaagaac     660
atttgatgaa acagtttcta catatgtgcc nccttgcaca gcaagttgaa gacttccata     720
aacgaacccc taacagatat catttgagga gcaagaagga tgatattaac ctgttaccct     780
ccaaatcttc tgtgaccaag atttgcagag acccacagac tcctgtactg caaaccaaac     840
accgtgcacg ggctgtgacc tgcaaaagtt acagcagagc tggaggctga ggagctcgag     900
aaattgcaac aatacaaatt caaagcacgt gaacttgatc ccagaatact tgaaggtggg     960
cccatcttgc ccaagaaacc acctgtgaaa ccacgccgag ccctatgcct cgtgcc        1016
```

        <210> 674
        <211> 1135
        <212> DNA
        <213> Homo Sapiens

        <400> 674

```
aggaattggg acaggcagaa ggaggcngct tgtttcangg tttgttccaa acaccgtttn      60
ttttttcagg ggcccttggt tccccaagaa agagangaaa tcagttgtga gggccnnttt     120
ntggtttttt tngttcaggg acnttttcag tgggctactg agagagagcc aaagagcggc     180
agggagctgg agaagagaat ggctgaggta gaagcccaga aagcccagca gttggaggag     240
gccagactac aggaggaaga gcagaaaaaa gaggagntgg ccaggctacg agagaactg      300
gtgcataagg caaatccaat acgcaagtac cagggtctgg agataaagtc aagtgaccag     360
cctctgactg ngcctgtatc tccccaaatt ctccactcga ttccactgct taaattcagc     420
tgtgagctgc ggataccgcc cggcaatggg acctgttttt aacttcaaac ctaggaccgt     480
cttgctttgt cattgggcat ggagagaacc catttntcca gacttttacc tacccgtgcc     540
tgagaaagca tacttgacaa ctgtggactc cagtttgtt gagaattgtt ttcttacatt     600
actaaggcta ataatgagat gtaactcatg aatgtctcga ttagactcca tgtagttact     660
tcctttaaac catcagccgg ccttttatat gggtcttcac tctgactaga atttagtctc     720
tgtgtcagca cagtgtaatc tctattgcta ttgcccctta cgactctcac cctctcccca     780
cttttttaa aaattttaac cagaaaataa agatagttaa atcctaagat agagattaag     840
tcatggttta aatgaggaac aatcagtaaa tcagattctg tcctcttctc tgcataccgt     900
```

```
gaatttatag ttaaggatcc ctttgctgtg agggtagaaa acctcaccaa ctgcaccagt      960
gaggaagaag actgcgtgga ttcatgggga gcctcacagc agccacgcag caggctctgg     1020
gtggggctgc cgttaaggca cgttctttcc ttactggtgc tgataacaac agggaaccgt     1080
gcagtgtgca ttttaagacc tggcctggaa taaatacgtt ttgtctttcc ctccc         1135
```

        <210> 675
        <211> 1067
        <212> DNA
        <213> Homo Sapiens

        <400> 675

```
attttaaaga aacttcacag agctgcttca gtcggggatt tgaagaagct gaaggaatac      60
cttcagatca agaaatatga tgtaaatatg caggacaaaa aatacagaac acctttgcac     120
ctagcctgtg ctaatggaca tacagatgtt gtactttcc taattgagca acaatgcaaa     180
ataaatgtcc gggatagtga aaacaaatcc ccattgatta aggcagtaca gtgtcaaaat     240
gaggattgtg cctactattc ttctaaactt tggtgcagac ccagatctga gggatattcg     300
ttataatact gttcttcact atgctgtttg tggtcaaagt ttgtcattag ttgaaaaact     360
gcttgaatac gaagctgatc ttgaagcgaa aaataaggat gggtatactc cactattagt     420
tgccgttatt aacaataatc caaaaatggt aaaaatttctt ctggagaaag gggctgatgt     480
gaatgcttca gataattatc aaagaacagc ccttattctt gctgtcagtg gtgaaccacc     540
atgtttagta aagcttcttc ttcagcaagg tgtggaatta tgttacgaag gtattgtgga     600
ttcacagctg aggaatatgt ttatttccat ggttttactg catagatacc cacaattcac     660
tgcgagccat ggaaagaaga aacatgctaa atagacacct tattcttggc actacatgtg     720
actaaaggaa gatatggaac ccattctac aatttctttg ccgcttcctt gaattggaaa     780
aatgtacttt gaaagaaccg gttaagtgaa ctatgataat attttttgctg actacccagt     840
tgaagaaaaa gtttcgttaa ttggatggga ttttttttt tcacgttaga agaatgaatg     900
aagaaatttt aaaagataaa cattatattg tgaaccatca gctgaaaaga taaattgtg     960
ttcaatatat aggagaaaaa atttgtgtca aaatgttgaa tggaataata atgagaaact    1020
gtgttaggca tgtattaaaa catttaaata aaataaaaat acatttc                1067
```

        <210> 676
        <211> 784
        <212> DNA
        <213> Homo Sapiens

        <400> 676

```
aaaagaattc tacaagattg tggaattcac aatctagtat tgatcaaaaa ttggcaaatc      60
aaattaatga tcttagacaa actgtcattt ggatgggaga cagactcatg agcttagaac     120
atcgtttcca gttacaatgt gactggaata cgtcagattt ttgtattaca ccccaaattt     180
ataatgagtc tgagcatcac tgggacatgg ttagacgcca tctacaggga agagaagata     240
atctcacttt agacatttcc aaaattaaaag aacaaatttt cgaagcatca aaagcccatt     300
taaatttggt gccaggaact gaggcaattg caggagttgc tgatggcctc gcaaatctta     360
accctgtcac ttgggttaag accattggaa gtactacgat tataaatctc atattaatcc     420
ttgtgtgcct gttttgtctg ttgttagtct gcaggtgtac ccaacagctc cgaagagaca     480
gcgaccatcg agaacgggcc atgatgacga tggcggtttt gtcgaaaaga aaggggggaa     540
atgtggggaa aagcaagaga gatcaaattg ttactgtgtc tgtgtagaaa gaagtagaca     600
tgggagactc catttttgtta tgtgttaaga aaaattcttc tgccttgaga ttctgttaat     660
ctatgacctt accccacc ccgtgctctc tgaaacgtgt gctgtgtcaa ctcagggttg     720
aatggattaa gggcggtgca ggatgtgctt tgttaaacag atgcttgaag gcagcatgct     780
cctt                                                                 784
```

        <210> 677
        <211> 1362
        <212> DNA
        <213> Homo Sapiens

```
   <400> 677
ggcacgagct gggcattaat gaggatcatt ctgagggtga tgaaaaatct gagaaggaaa      60
ctattatggc tcaccagccg actgatgtgg agtccacttt attgcaagtt gcaaggaaca     120
agaatactgc catccgtgaa gaactcaacc agctgaaaaa tgaaaacaga atgttaaagg     180
acaggttgaa tgcattgggc tttttcccctag agcagaggtt agacaattct gaaaaactgt     240
ttggctatca gtccctgagc ccagaaatca ccctggtaa ccagagcgat ggaggaggaa     300
ctctgacttc ttcagtggaa ggctctgccc ctggctcagt ggaggatctc ttgagtcagg     360
atgaaaatac actaatggac catcagcaca gtaactccat ggacaattta gacagtgagt     420
gcagtgaggt ctaccagccc ctcacatcga gcgatgatgc gctggatgca cacatctctc     480
tctcagagtc ggaaggcatc tctcagcata gagcgctccc ggaagggagg cagcgggaat     540
gccagtgaag tgtccgtggc tctgcctgac ttnacgcata caccagatgg nagagaacca     600
acacagtaca agtgagggac tccaggcaac cctgcaagag ctagctgatt tacagcagat     660
tacccaggaa ctgaatagtg aaaacgaaag gcttggagaa gagaaggtta ttctgatgga     720
gtctttatgt cagcagagcg ataagttgga acactttagt cgacagattg aatacttccg     780
ctctcttcta gatgagcatc acatttctta tgtcatagat gaagatgtaa aaagtgggcg     840
ctatatggma ttagagcaac gttacatgga cctcgctgag aatgcccgtt ttgaacggga     900
gcagcttctt ggtgtccagc agcatttaag caatactttg aaaatggcag aacaagacaa     960
taaggaagct caagaaatga tagggggcact caaagaacgc agtcaccata tggagcgaat    1020
tattgagtct gagcagaaag gaaaagcagc cttggcagcc acgttagagg aatacaaagc    1080
cacagtggcc agtgaccaga tagagatgaa tcgcctgaag gctcagctgg agaatgacaa    1140
gcagaaagtg gcagagctgt attctatcca taactctgga gacacatctg atattcagga    1200
cctcctggag agtgtcaggc tggacaaaga aaaagcagag actttggcta gtagcttgca    1260
ggaagatctg gctcataccc gacatgatgc caatcgatta caggatgcca ttgctaggta    1320
gaggatgata ccgagcctcc aagaagagct agaacaaatt ga                       1362

   <210> 678
   <211> 1771
   <212> DNA
   <213> Homo Sapiens

   <400> 678
agccagcggc agcaggctga gctcccaggc tgacatctgg gcagggctga tgggcagctt      60
ctggccatct ggtgaccagg tgtgccgcaa gtwktwwkta tatgcacagc cccttttccta     120
ataacccaca ttctaggtta cgtagacacg ttaaactcct attctagaac atcgtgcttg     180
aatgcagacc cctcagccca caatcgggct ggctgggcct cctgtgagcc ctcattgcat     240
ccagtctgtg gggcagtgac cccgcttcca ctggtggctg tcttcctca tggtgctatg     300
caggtgccaa acacagttat attctcaaag gtacaggtct tgtctggaca ttgttcaaac     360
caatagctac tgcgttaggc acacgggaga tccctattcc caaaaatagc tgttgagttc     420
tggcctgaga gcatctccag tgaccacctt taaataaggc tttggttcaa acagcatgga     480
cccagcacct ggggaggggtg ggcacagggg gcatggaccc agtacctggg gagggcgggc     540
atggtggtag gagacaactc aaccactgag tcttggaggt cctgccttgg ccacggaggg     600
cagtggctgc cctcacaaga agagtgaaga cactttcttt aactctgtcc taggagaatt     660
atgtgttagt gactcagtga gtttaaatga cactgcctgg rctccctaaa gttgtttact     720
tttstcctat ttrctgcktt awtccttgct ctcaccatgc taatgtacag atgttgttta     780
gatttctatg cttattgaaa caatgtaact gtgggactaa cagaacagga gcgaccttgt     840
ccagcattgc tcgtaacaaa acaaaaatgt taactagaaa aactccttat gatgaagaaa     900
tctaaagcca gagctgggac tccaaacccc ttccagggtg gaagacaggt cgctgagtcc     960
aggcaagggg cccccgtaac tgcttcccgc cagaaagccc agccgcgtga gtkcagcagc    1020
agcacctcag ccctggcgtg gccgcaccac ggcctctaga tactcttcta gctcaggctg    1080
aacacgcctg gattgtgtcg gccgggacag ccccgtcagt gtggggcagc tgacccacgt    1140
ctgtgtgaac atgctcctcc aaactaggac ggtgaagggc ccagggcgct gggaactgcc    1200
aggcgctgac tctccttctg ggttctcacc agcaccggaa cccacccag ccaatagtca    1260
ggaagtgccg cggccgagcc ttcatcaacc ctagtgagtt tcccacagaa ctgaatccct    1320
tttcccaaat tcagctgtgc atgagcccctt tttgtttggt gccctggagc actagtgtag    1380
ttcaatattc tcttcagaag gaaaactcca gcagccaccg gcctgcagga tgtgtgctga    1440
```

-349-

```
gcccacatga cctgaatgga cgggtcatgt gggaggggcc ctggtgggag ctgtgggcca    1500
cacggctgag ttcttccaat acggaagccc cgagctggag gctcacacgc tgtggggcag    1560
cccagagttg ctggaagctt tacaggggtg cgtagctaat ggcgtcggtg tcgctcggtc    1620
gctgtggagg ggtaccccgc tattggggcg gctcctcccg gcatgctcag gtctcaaagt    1680
acttgtagat cgcgtcacat acagtatcac gttctgccag tcgggtcgtt cagtccgtac    1740
catttcatta atgtccagtg tggatttgat g                                   1771
```

        <210> 679
        <211> 1367
        <212> DNA
        <213> Homo Sapiens

        <400> 679

```
ctagtggatc caaagaattc ggcacgagga aacaagagcc ctgaaagatg aaatagatgt      60
tcttagggct acctctgata aagcaaataa actggagtca acagttgaga tatatcgtca     120
gaagctacaa gatctgaatg accttcgcaa gcaggtgaaa actttacagg aaaccaacat     180
gatgtatatg cataatacag tcagcttaga agaagaatta aaaaaagcaa atgcagcacg     240
tacacaatta gaaacataca aaaggcaggt tcaagatctt catgttaaac tttcctccga     300
atccaagagg gcagacacac tagcgtttga aatgaagcgg cttgaagaaa acatgaagc     360
tttacttaag gaaaaagaga gactaattga gcagcgtgat actttgaaag aaacaaatga     420
agagcttcga tgttcacaag tacaacagga ccacctaaac caaacagatg catctgctac     480
aaaaagttat gagaatcttg ctgctgagat tatgccagtg gaatataggg aggtgtttat     540
tcgactgcaa catgaaaata agatgcttcg cttacagcaa gaaggctctg agaatgaacg     600
tattgaggaa cttcaggagc agctagaaca gaaacaccgt aaaatgaatg aactggaaac     660
tgagcagagg ctgagcaaag agcgtattag agaattgcag cagcagattg aggacctcca     720
gaaatcttta caggaacaag gttccaagtc tgaaggcgaa agttccagca aattaaagca     780
gaagttggaa gctcatatgg aaaaactcac agaggtccat gaagaattac agaagaaaca     840
agaactcatt gaagatcttc agccagatat aaatcaaaat gtacaaaaga tcaatgaact     900
tgaagctgct cttcagaaga aagatgaaga tatgaaagca atggaggaaa gatataaaat     960
gtacttggag aaagccagaa atgtaataaa aactttggat cccaagttaa atccagcatc    1020
agctgaaata atgctactaa gaaagcagtt ggcagagaaa gagagaagaa ttgagattct    1080
ggagagtgaa tgcaaagtag caaaattccg tgattatgaa gaaaactcat tgtttctgcg    1140
tggtataata agagtctagc attccagaaa ctggggatgg aatctagact tgtgagcggc    1200
ggtggtgcct gcagtgacac tggtgcgtgc actcctgcgc ggtctttctt agcgcagcaa    1260
cggcacatca ccaacaccag aagaaatctc tctgttaaag tccctgctac aacatctgat    1320
taaactgcaa aaaaaacaaa acaaaacaaa aaaaaaaaaa aaaaac                    1367
```

        <210> 680
        <211> 2545
        <212> DNA
        <213> Homo Sapiens

        <400> 680

```
ggatccaaag attcggcacg aggcggagtc gcagcctcgg tcccggagcc caccttcgcc      60
tcgcccttgc ccagcctgcg gtgatggagg cggccaccac actgcaccca ggccgcgcc     120
cggcgctgcc cctcgggggc ccgggcccgc tgggcgagtt cctgcctcca cccgagtgcc     180
cggtcttcga acccagctgg gaagagttcg cggacccctt cgctttcatc cacaagatcc     240
ggcccatagc cgagcagact ggcatctgta aggtgcggcc ccgccggat tggcagccac     300
catttgcatg tgatgttgat aaacttcatt ttacgccacg tatccagaga ctgaatgaat     360
tggaggccca aactcgtgta aaattgaatt tcttggacca gattgcaaag tactgggagt     420
tacaggaag tactctgaaa attccacatg tggagaggaa gatcttggac ttatttcagc     480
ttaataagtt agttgcagaa gaaggtggat ttgcagttgt ttgcaaggat agaaatggga     540
ccaaaattgc taccaagatg gggtttgctc ctgccaaagc agtgggctca catatcagag     600
ggcattatga acgaattctc aaccccctaca acttattcct gtccggagac agcctaaggt     660
gtttgcagaa gccaaacctg accacagaca ctaaggacaa ggagtacaaa ccccatgata     720
```

```
ttccccagag gcagtctgtg cagccttcgg aaacgtgccc cccagcccga cgagcaaaac    780
gcatgagagc agaggccatg aatattaaaa tagaacccga ggagacaaca gaagccagaa    840
ctcataatct gagacgtcga atgggttgtc caactccaaa atgtgaaaat gagaaagaaa    900
tgaagagtag catcaagcaa gaacctattg agaggaaaga ttatattgta gaaaatgaga    960
aggaaaagcc caagagtcga tctaaaaaag ccaccaatgc tgtggacctg tatgtctgtc   1020
ttttatgtgg cagtggcaat gatgaagacc ggctactgtt gtgtgatggc tgtgatgaca   1080
gttaccatac cttttgcttg atcccacctc tccatgatgt tcccaaggga gactggaggt   1140
gtcctaagtg tttggctcag gaatgtagta agccacaaga agcatttggc tttgaacaag   1200
cagccaggga ctataccctc cgtacttttg gggaaatggc agatgcgttc aaatctgatt   1260
acttcaacat gccagtccat atggtcccca cagagcttgt tgagaaagaa ttttggagac   1320
tagtaagcac tattgaggag gatgtcacag tggaatatgg agctgacatt gcctcaaagg   1380
aatttggcag tggctttcct gtccgagatg ggaaaatcaa actctcacct gaggaagagg   1440
agtatcttga tagtggctgg aatttgaaca acatgccagt gatggagcag tctgtccttg   1500
cacatattac tgctgatata tgtggcatga aacttccttg gttgtatgtg ggaatgtgct   1560
tttcttcatt ctgttggcac attgaagacc actggagcta ttcaattaac tacttgcact   1620
gggggtgagcc aaaaacctgg tatggagtcc cagggtatgc tgctgagcag ctagaaaatg   1680
taatgaagaa actagctcca gaactctttg tgtcccagcc ggatctcctc catcagcttg   1740
tgaccatcat gaaccccaat accctgatga ctcatgaagt gcctgtttac cgaactaatc   1800
agtgtgctgg ggagtttgtg attacatttc caagagccta ccacagtgtt ttaaccaggg   1860
ttttaatttt gctgaggctg ttaacttctg cactgttgat tggctgccat taggccgaca   1920
gtgtgtggag cattatcgct tgcttcatcg atattgtgtg ttttcccatg atgagatgat   1980
ctgcaagatg gcttccaagg ctgatgtatt agatgttgta gtggcttcaa ctgttcagaa   2040
agacatggcc attatgattg aggatgagaa agctttaaga gaaactgtcc gtaaattggg   2100
agtgattgat tcggaaagaa tggattttga gctgttgcca gatgatgaac gtcagtgtgt   2160
aaaatgcaaa actacatgct tcatgtctgc catctcctgt tcttgtaaac ctggccttct   2220
tgtttgcctg catcatgtaa aagaattgtg ttcctgtcct ccttataaat ataaattgcg   2280
gtataggtac acgctggatg atctctaccc tatgatgaat gcattgaagc ttcgagcaga   2340
atcttacaac gaatgggcct tgaatgtgaa tgaagctttg gaggcaaaga tcaacaagaa   2400
gaaaagtatg tgatacagaa agtgacttgg tgattggcaa attggggctt attgtgatgt   2460
agccaaatta aagtcaacaa aacattaaaa aaaaaaaaaa aaaactcgag agtacttcta   2520
gagcgccgcg ggcccatcga ttttc                                        2545
```

```
        <210> 681
        <211> 1745
        <212> DNA
        <213> Homo Sapiens


        <400> 681
ctagtggatc caaagaattc ggcacgaggg aagatggctt cgtttcggaa gctaacgctt     60
tctgaaaaag tgccgccaaa tcatcccagt cggaaaaagg ttaacttcct agatatgtct    120
ctagacgaca ttataatcta taaagagtta gaagggacaa atgctgaaga agaaaagaat    180
aaaagacaga accatagtaa aaaggaatcg ccttcaagac agcaatcaaa agctcataga    240
catcgccatc ggagaggcta ctcaagatgc agaagcaact ctgaggaagg aaatcatgat    300
aaaaaaccat cccaaaaacc ttctggattc aagtctggac aacacccttt aaatgggcag    360
cctttaattg agcaggagaa gtgcagtgac aattatgagg cccaagcaga gaagaatcaa    420
ggccagtcag aggggaacca gcatcaatca gaaggaaatc cggacaaatc agaagaatcc    480
cagggccaac cagaagaaaa tcatcattct gagcgatccc gaaaccactt agagagatct    540
ctttctcagt cagacagatc tcaagggcag ctaaagagac atcatcccca atatgagaga    600
tctcatggcc aatacaagag atctcatggt caatctgaga gatctcatgg ccactcagag    660
agatctcatg gtcactcaga gagatctcat ggtcactcag agagatctca tggtcactca    720
aagagatctc gtagccaggg agatcttgtg gacactcaga gtgatctcat agccactcag    780
agagatctca tagccactca gaaagatctc atagccactc agagagatct catagccact    840
cagagagatc tcatagtcac tcagagagat ctcgtggcca ctgagagaga tctcataaat    900
cagtcaggga gatctcatgg ccaatcagaa agacatcaga gatactcaac aggtaaaaat    960
acaataacta cttaatcatc agaacaatgt gttgaattct gtggaaatag aaaagcatat   1020
```

```
atctatattc taatggctaa atatgtattt gttgaaacat gtatattggg acaaagacat      1080
aaatattaga atggaggtaa tacatacata gtatcaatat tgtttcaact tgatgtcctc      1140
taagctatca tccagttacc caagatgtcc cattaagttg ttcccggtag gtctgctttc      1200
cctggaagag ccgtatgtac tcagcctttc ctattgggcc ttccccacaa ttagaatatt      1260
ttgacttagt gtcctgtccc ccttggacgt tccaacttga cttagtgtcc agtgcccctt      1320
ggacattcca acctggtagg taagctaatc taacaactaa ctgccaaatt gataatatat      1380
aatctatgat aatgaatatc tcttttgtgt ctccttccta agccatcctc agagagtcct      1440
tagcagacaa atggtagatg tatctttggg cagctgaact tttctgcttt cctcaaatca      1500
gaccatatga gaggatatat tctatgcata gatgtaatgc taaccttctg aatatatttt      1560
gaatacattt atatattcac tgttgcctta taaaactgtt agggtaggtc tgtctaccct      1620
agcaaaagaa acacagaaat ttaaatgtac tgggagttat kkkkttaaaa acacaagata      1680
tgttaactgc agtttgtttg gttattcaat aaaagtttta gtttttaaaaa aaaaaaaaaa      1740
aaaac                                                                  1745
```

```
        <210> 682
        <211> 1745
        <212> DNA
        <213> Homo Sapiens

        <400> 682
ctagtggatc caaagaattc ggcacgaggg aagatggctt cgtttcggaa gctaacgctt        60
tctgaaaaag tgccgccaaa tcatcccagt cggaaaaagg ttaacttcct agatatgtct       120
ctagacgaca ttataatcta taaagagtta gaagggacaa atgctgaaga agaaaagaat       180
aaaagacaga accatagtaa aaaggaatcg ccttcaagac agcaatcaaa agctcataga       240
catcgccatc ggagaggcta ctcaagatgc agaagcaact ctgaggaagg aaatcatgat       300
aaaaaaccat cccaaaaacc ttctggattc aagtctggac aacacccttt aaatgggcag       360
cctttaattg agcaggagaa gtgcagtgac aattatgagg cccaagcaga gaagaatcaa       420
ggccagtcag aggggaacca gcatcaatca gaaggaaatc cggacaaatc agaagaatcc       480
cagggccaac cagaagaaaa tcatcattct gagcgatccc gaaaccactt agagagatct       540
ctttctcagt cagacagatc tcaagggcag ctaaagagac atcatcccca atatgagaga       600
tctcatggcc aatacaagag atctcatggt caatctgaga gatctcatgg ccactcagag       660
agatctcatg gtcactcaga gagatctcat ggtcactcag agagatctca tggtcactca       720
aagagatctc gtagccaggg agatcttgtg gacactcaga gtgatctcat agccactcag       780
agagatctca tagccactca gaaagatctc atagccactc agagagatct catagccact       840
cagagagatc tcatagtcac tcagagagat ctcgtggcca ctgagagaga tctcataaat       900
cagtcaggga gatctcatgg ccaatcagaa agacatcaga gatactcaac aggtaaaaat       960
acaataacta cttaatcatc agaacaatgt gttgaattct gtggaaatag aaaagcatat      1020
atctatattc taatggctaa atatgtattt gttgaaacat gtatattggg acaaagacat      1080
aaatattaga atggaggtaa tacatacata gtatcaatat tgtttcaact tgatgtcctc      1140
taagctatca tccagttacc caagatgtcc cattaagttg ttcccggtag gtctgctttc      1200
cctggaagag ccgtatgtac tcagcctttc ctattgggcc ttccccacaa ttagaatatt      1260
ttgacttagt gtcctgtccc ccttggacgt tccaacttga cttagtgtcc agtgcccctt      1320
ggacattcca acctggtagg taagctaatc taacaactaa ctgccaaatt gataatatat      1380
aatctatgat aatgaatatc tcttttgtgt ctccttccta agccatcctc agagagtcct      1440
tagcagacaa atggtagatg tatctttggg cagctgaact tttctgcttt cctcaaatca      1500
gaccatatga gaggatatat tctatgcata gatgtaatgc taaccttctg aatatatttt      1560
gaatacattt atatattcac tgttgcctta taaaactgtt agggtaggtc tgtctaccct      1620
agcaaaagaa acacagaaat ttaaatgtac tgggagttat kkkkttaaaa acacaagata      1680
tgttaactgc agtttgtttg gttattcaat aaaagtttta gtttttaaaaa aaaaaaaaaa      1740
aaaac                                                                  1745
```

```
        <210> 683
        <211> 3127
        <212> DNA
        <213> Homo Sapiens
```

```
    <400> 683
gaattcggca cgagggtcag caattgctta gggcggaatg cgatttcggg ggaggaggcg      60
cgggtatgta dacagagggg gttgggacac accaggaggg gaggagccag ccccagagat     120
cgggaatcct ctcagtcctt agttacaagg ctccatcctc actttgttcg ctcctcagtc     180
gtccaggcgg attccttttt cgccaggcac caaggcacag cttagagtag acccgagtcc     240
tgctctgcgg agttcctctt cccagcgaag gtacagaggc ggatgaactg ctgagacttg     300
attgacgtat tttaagcttt ttttaacttc tgaagtctag caggcctgta agaacaaaaa     360
tcattctgta ggaattaaaa acagaatcca gtcttgacaa catatccaca atgtctgatg     420
tatctactag tgtacaatca aaatttgata gacttgcaaa gaaaaaggaa aatatcacct     480
atatgagcag agagcagtta acagaaactg ataaggacat agctccggta ttagcattta     540
aaagtcaagg acgtatcagc aattatgaat aagtttaagg tcttaatgga aattcaagac     600
ctgatgtttg aggagatgag ggaaactctt aaaaatgacc taaaagcagt tttaggagga     660
aaagctacaa tacctgaggt aaagaattca gagaactcca gtagtaggca ggtttcagca     720
aataatcaat ttagcattac aaaaaacagg gatggtaggg aaaatagaag gagaaactct     780
aaaataggtg atgataatga aaatttaacc tttaaattag aagtaaatga gctgagtggt     840
aaattagaca acactaacga atacaatagt aatgatggta agaaattacc ccagggtgaa     900
tcacgaagtt acgaagtcat gggaagtatg gaagaaacct tatgcaatat agatgacaga     960
gatggaaatc gcaatgtcca tttagaattt acagaaagag agagtaggaa ggatggagag    1020
gatgaatttg tcaaagaaat gagagaggaa agaaaatttc agaaattgaa gaataaagag    1080
gaggttttaa aagcctccag agaagaaaaa gtgttgatgg atgaaggagc agtacttacc    1140
ctggcagccg acctttcatc agcaacactg gatattagta agcaatggag taatgtcttc    1200
aacattctga gagaaaatga ttttgaacct aaatttctgt gtgaagttaa attagcattt    1260
aaatgtgatg gtgaaataaa gacattttca gatctgcaaa gccttagaaa atttgccagc    1320
caaaaatctt ctatganaga wttactgana gatgtactcc cacaaaagga agaaataaat    1380
caaggaggaa gaaaatatgg nattcaagaa aaaagggata aaaccctaat agactcanag    1440
catagagctg gagaaataac cagtgatggc ttgagcttcc tatttcttaa agaagtaaaa    1500
gttgctaagc cagaggagat gaaaaactta gagactcaag aggaagagtt ttccgagcta    1560
gaggagctgg atgaagaggc ttcagggatg gaggatgatg aagatacctc agggctggag    1620
gaggaagaag aagaagaggc ttcagggttg gaggaggatg antcctcang gctagaggag    1680
gaagaggaac agacttcaga acaggactca accttttcang gtcatacttt ggtagatgca    1740
aagcatgaag ttgagataac cagtnatggc atggaaacta ctttcattga ctctgtagag    1800
gattctgaat cagaggagga agaggaagga aagagctctg aaacaggaaa ggtaaagact    1860
acctccctga ctgagaaaaa agcctcacgt agacaaaaag aaattccctt tagttatttg    1920
gttggggact ctgggaagaa aaagttggtg aaacaccagg tggtgcacaa aacccaggag    1980
gaagaggaaa cagctgtgcc cacaagtcaa ggaactggca caacctgtct gacccttatgt    2040
ttggcctctc cctcaaagtc actagagatg agtcatgatg agcataaaaa gcattcacat    2100
acaaatttga gtatttcaac aggagtcacc aaacttaaga aaacagaaga aagaaacac     2160
aggactctgc acacagaaga actaacatcc aaagaagcag acttaacaga ggaaacagaa    2220
gaaaacttga gaagtagtgt gattaatagc atcagagaga taaaagagga gattggaaat    2280
ttgaaaagtt cccattcagg tgtcttggaa attgaaaatt cagtagatga tctgagtagc    2340
agaatggaca tccttgaaga aagaatagac agtctagaag atcaaattga agaattctct    2400
aaggatacaa tgcaaatgac caaacagata attagtaaag aagggccnag agatatagag    2460
gagagatcta gaagttgcaa cattcgtttg ataggaattc cagaaaagga gagttatgag    2520
aataggggcag aggacataat taaggaaata attgatgaaa actttgcaga actaaagaaa    2580
ggttcaagtc ttgagattgt cagtgcttgt cgagtaccta gtaaaattga tgaaaagaga    2640
ctgactccta gacacatctt ggtgaaattt tggaattcta gtgataaaga gaaaataata    2700
aggccttcta gagagagaag agaaattacc taccaaggaa caagaatcag gttgacagca    2760
gacttatcac tggacacact ggatgctaga agtaaatgga gcaatgtctt caaagttctg    2820
ctggaaaaag gctttaaccc tagaaccccta tacccagcca aaatggcatt tgattttagg    2880
ggtaaaacaa aggtattcct tagtattgaa gaatttagag attatgtttt gcatatgccc    2940
accttgagag aattactggg gaataatata ccttagcacc ccagggtgac tacaaacaat    3000
atgctttcct ccccccagcat gcacccaaaa accaacaagt aaaacgaaag tacacttcta    3060
cccagaagga tggacagcta ataccgtact tggggatgag gagcaaggaa tattacagat    3120
attaccc                                                             3127
```

```
    <210> 684
    <211> 803
    <212> PRT
    <213> Homo Sapiens


    <400> 684
Met Asn Lys Phe Lys Val Leu Met Glu Ile Gln Asp Leu Met Phe Glu
1               5                   10                  15
Glu Met Arg Glu Thr Leu Lys Asn Asp Leu Lys Ala Val Leu Gly Gly
                20                  25                  30
Lys Ala Thr Ile Pro Glu Val Lys Asn Ser Glu Asn Ser Ser Ser Arg
        35                  40                  45
Gln Val Ser Ala Asn Asn Gln Phe Ser Ile Thr Lys Asn Arg Asp Gly
    50                  55                  60
Arg Glu Asn Arg Arg Arg Asn Ser Lys Ile Gly Asp Asp Asn Glu Asn
65                  70                  75                  80
Leu Thr Phe Lys Leu Glu Val Asn Glu Leu Ser Gly Lys Leu Asp Asn
                85                  90                  95
Thr Asn Glu Tyr Asn Ser Asn Asp Gly Lys Lys Leu Pro Gln Gly Glu
                100                 105                 110
Ser Arg Ser Tyr Glu Val Met Gly Ser Met Glu Glu Thr Leu Cys Asn
            115                 120                 125
Ile Asp Asp Arg Asp Gly Asn Arg Asn Val His Leu Glu Phe Thr Glu
    130                 135                 140
Arg Glu Ser Arg Lys Asp Gly Glu Asp Glu Phe Val Lys Glu Met Arg
145                 150                 155                 160
Glu Glu Arg Lys Phe Gln Lys Leu Lys Asn Lys Glu Glu Val Leu Lys
                165                 170                 175
Ala Ser Arg Glu Glu Lys Val Leu Met Asp Glu Gly Ala Val Leu Thr
                180                 185                 190
Leu Ala Ala Asp Leu Ser Ser Ala Thr Leu Asp Ile Ser Lys Gln Trp
            195                 200                 205
Ser Asn Val Phe Asn Ile Leu Arg Glu Asn Asp Phe Glu Pro Lys Phe
    210                 215                 220
Leu Cys Glu Val Lys Leu Ala Phe Lys Cys Asp Gly Glu Ile Lys Thr
225                 230                 235                 240
Phe Ser Asp Leu Gln Ser Leu Arg Lys Phe Ala Ser Gln Lys Ser Ser
                245                 250                 255
Met Xaa Xaa Leu Leu Xaa Asp Val Leu Pro Gln Lys Glu Glu Ile Asn
                260                 265                 270
Gln Gly Gly Arg Lys Tyr Gly Ile Gln Glu Lys Arg Asp Lys Thr Leu
            275                 280                 285
Ile Asp Ser Xaa His Arg Ala Gly Glu Ile Thr Ser Asp Gly Leu Ser
    290                 295                 300
Phe Leu Phe Leu Lys Glu Val Lys Val Ala Lys Pro Glu Glu Met Lys
305                 310                 315                 320
Asn Leu Glu Thr Gln Glu Glu Glu Phe Ser Glu Leu Glu Glu Leu Asp
                325                 330                 335
Glu Glu Ala Ser Gly Met Glu Asp Asp Glu Asp Thr Ser Gly Leu Glu
                340                 345                 350
Glu Glu Glu Glu Glu Glu Ala Ser Gly Leu Glu Glu Asp Xaa Ser Ser
            355                 360                 365
Xaa Leu Glu Glu Glu Glu Glu Gln Thr Ser Glu Gln Asp Ser Thr Phe
    370                 375                 380
Xaa Gly His Thr Leu Val Asp Ala Lys His Glu Val Glu Ile Thr Ser
```

```
385                    390                    395                    400
Xaa Gly Met Glu Thr Thr Phe Ile Asp Ser Val Glu Asp Ser Glu Ser
                    405                    410                    415
Glu Glu Glu Glu Glu Gly Lys Ser Ser Glu Thr Gly Lys Val Lys Thr
                420                    425                    430
Thr Ser Leu Thr Glu Lys Lys Ala Ser Arg Arg Gln Lys Glu Ile Pro
            435                    440                    445
Phe Ser Tyr Leu Val Gly Asp Ser Gly Lys Lys Lys Leu Val Lys His
        450                    455                    460
Gln Val Val His Lys Thr Gln Glu Glu Glu Glu Thr Ala Val Pro Thr
465                    470                    475                    480
Ser Gln Gly Thr Gly Thr Thr Cys Leu Thr Leu Cys Leu Ala Ser Pro
                485                    490                    495
Ser Lys Ser Leu Glu Met Ser His Asp Glu His Lys Lys His Ser His
            500                    505                    510
Thr Asn Leu Ser Ile Ser Thr Gly Val Thr Lys Leu Lys Lys Thr Glu
        515                    520                    525
Glu Lys Lys His Arg Thr Leu His Thr Glu Glu Leu Thr Ser Lys Glu
    530                    535                    540
Ala Asp Leu Thr Glu Glu Thr Glu Glu Asn Leu Arg Ser Ser Val Ile
545                    550                    555                    560
Asn Ser Ile Arg Glu Ile Lys Glu Glu Ile Gly Asn Leu Lys Ser Ser
                565                    570                    575
His Ser Gly Val Leu Glu Ile Glu Asn Ser Val Asp Asp Leu Ser Ser
            580                    585                    590
Arg Met Asp Ile Leu Glu Glu Arg Ile Asp Ser Leu Glu Asp Gln Ile
        595                    600                    605
Glu Glu Phe Ser Lys Asp Thr Met Gln Met Thr Lys Gln Ile Ile Ser
    610                    615                    620
Lys Glu Gly Pro Arg Asp Ile Glu Glu Arg Ser Arg Ser Cys Asn Ile
625                    630                    635                    640
Arg Leu Ile Gly Ile Pro Glu Lys Glu Ser Tyr Glu Asn Arg Ala Glu
                645                    650                    655
Asp Ile Ile Lys Glu Ile Ile Asp Glu Asn Phe Ala Glu Leu Lys Lys
            660                    665                    670
Gly Ser Ser Leu Glu Ile Val Ser Ala Cys Arg Val Pro Ser Lys Ile
        675                    680                    685
Asp Glu Lys Arg Leu Thr Pro Arg His Ile Leu Val Lys Phe Trp Asn
    690                    695                    700
Ser Ser Asp Lys Glu Lys Ile Ile Arg Pro Ser Arg Glu Arg Arg Glu
705                    710                    715                    720
Ile Thr Tyr Gln Gly Thr Arg Ile Arg Leu Thr Ala Asp Leu Ser Leu
                725                    730                    735
Asp Thr Leu Asp Ala Arg Ser Lys Trp Ser Asn Val Phe Lys Val Leu
            740                    745                    750
Leu Glu Lys Gly Phe Asn Pro Arg Thr Leu Tyr Pro Ala Lys Met Ala
        755                    760                    765
Phe Asp Phe Arg Gly Lys Thr Lys Val Phe Leu Ser Ile Glu Glu Phe
    770                    775                    780
Arg Asp Tyr Val Leu His Met Pro Thr Leu Arg Glu Leu Leu Gly Asn
785                    790                    795                    800
Asn Ile Pro
```

        <210> 685

```
       <211> 947
       <212> PRT
       <213> Homo Sapiens

       <400> 685
Met Ser Leu Pro Ser Arg Gln Thr Ala Ile Ile Val Asn Pro Pro Pro
1               5                   10                  15
Pro Glu Tyr Ile Asn Thr Lys Lys Asn Gly Arg Leu Thr Asn Gln Leu
                20                  25                  30
Gln Tyr Leu Gln Lys Val Val Leu Lys Asp Leu Trp Lys His Ser Phe
        35                  40                  45
Ser Trp Pro Phe Gln Arg Pro Val Asp Ala Val Lys Leu Lys Leu Pro
    50                  55                  60
Asp Tyr Tyr Thr Ile Ile Lys Asn Pro Met Asp Leu Asn Thr Ile Lys
65                  70                  75                  80
Lys Arg Leu Glu Asn Lys Tyr Tyr Ala Lys Ala Ser Glu Cys Ile Glu
                85                  90                  95
Asp Phe Asn Thr Met Phe Ser Asn Cys Tyr Leu Tyr Asn Lys Pro Gly
                100                 105                 110
Asp Asp Ile Val Leu Met Ala Gln Ala Leu Glu Lys Leu Phe Met Gln
            115                 120                 125
Lys Leu Ser Gln Met Pro Gln Glu Glu Gln Val Val Gly Val Lys Glu
    130                 135                 140
Arg Ile Lys Lys Gly Thr Gln Gln Asn Ile Ala Val Ser Ser Ala Lys
145                 150                 155                 160
Glu Lys Ser Ser Pro Ser Ala Thr Glu Lys Val Phe Lys Gln Gln Glu
                165                 170                 175
Ile Pro Ser Val Phe Pro Lys Thr Ser Ile Ser Pro Leu Asn Val Val
            180                 185                 190
Gln Gly Ala Ser Val Asn Ser Ser Ser Gln Thr Ala Ala Gln Val Thr
        195                 200                 205
Lys Gly Val Lys Arg Lys Ala Asp Thr Thr Thr Pro Ala Thr Ser Ala
    210                 215                 220
Val Lys Ala Ser Ser Glu Phe Ser Pro Thr Phe Thr Glu Lys Ser Val
225                 230                 235                 240
Ala Leu Pro Pro Ile Lys Glu Asn Met Pro Lys Asn Val Leu Pro Asp
                245                 250                 255
Ser Gln Gln Gln Tyr Asn Val Val Glu Thr Val Lys Val Thr Glu Gln
                260                 265                 270
Leu Arg His Cys Ser Glu Ile Leu Lys Glu Met Leu Ala Lys Lys His
            275                 280                 285
Phe Ser Tyr Ala Trp Pro Phe Tyr Asn Pro Val Asp Val Asn Ala Leu
    290                 295                 300
Gly Leu His Asn Tyr Tyr Asp Val Val Lys Asn Pro Met Asp Leu Gly
305                 310                 315                 320
Thr Ile Lys Glu Lys Met Asp Asn Gln Glu Tyr Lys Asp Ala Tyr Ser
                325                 330                 335
Phe Ala Ala Asp Val Arg Leu Met Phe Met Asn Cys Tyr Lys Tyr Asn
                340                 345                 350
Pro Pro Asp His Glu Val Val Thr Met Ala Arg Met Leu Gln Asp Val
        355                 360                 365
Phe Glu Thr His Phe Ser Lys Ile Pro Ile Glu Pro Val Glu Ser Met
    370                 375                 380
Pro Leu Cys Tyr Ile Lys Thr Asp Ile Thr Glu Thr Thr Gly Arg Glu
385                 390                 395                 400
```

-356-

```
Asn Thr Asn Glu Ala Ser Ser Glu Gly Asn Ser Ser Asp Asp Ser Glu
             405             410             415
Asp Glu Arg Val Lys Arg Leu Ala Lys Leu Gln Glu Gln Leu Lys Ala
             420             425                 430
Val His Gln Gln Leu Gln Val Leu Ser Gln Val Pro Phe Arg Lys Leu
             435             440             445
Asn Lys Lys Lys Glu Lys Ser Lys Lys Glu Lys Lys Lys Glu Lys Val
         450             455             460
Asn Asn Ser Asn Glu Asn Pro Arg Lys Met Cys Glu Gln Met Arg Leu
465             470             475             480
Lys Glu Lys Ser Lys Arg Asn Gln Pro Lys Lys Arg Lys Gln Gln Phe
             485             490             495
Ile Gly Leu Lys Ser Glu Asp Glu Asp Asn Ala Lys Pro Met Asn Tyr
             500             505             510
Asp Glu Lys Arg Gln Leu Ser Leu Asn Ile Asn Lys Leu Pro Gly Asp
             515             520             525
Lys Leu Gly Arg Val Val His Ile Ile Gln Ser Arg Glu Pro Ser Leu
         530             535             540
Ser Asn Ser Asn Pro Asp Glu Ile Glu Ile Asp Phe Glu Thr Leu Lys
545             550             555             560
Ala Ser Thr Leu Arg Glu Leu Glu Lys Tyr Val Ser Ala Cys Leu Arg
             565             570             575
Lys Arg Pro Leu Lys Pro Pro Ala Lys Lys Ile Met Met Ser Lys Glu
             580             585             590
Glu Leu His Ser Gln Lys Lys Gln Glu Leu Glu Lys Arg Leu Leu Asp
             595             600             605
Val Asn Asn Gln Leu Asn Ser Arg Lys Arg Gln Thr Lys Ser Asp Lys
         610             615             620
Thr Gln Pro Ser Lys Ala Val Glu Asn Val Ser Arg Leu Ser Glu Ser
625             630             635             640
Ser Ser Ser Ser Ser Ser Ser Ser Glu Ser Glu Ser Ser Ser Ser Asp
             645             650             655
Leu Ser Ser Ser Asp Ser Ser Asp Ser Glu Ser Glu Met Phe Pro Lys
             660             665             670
Phe Thr Glu Val Lys Pro Asn Asp Ser Pro Ser Lys Glu His Val Lys
             675             680             685
Lys Met Lys Asn Glu Cys Ile Leu Pro Glu Gly Arg Thr Gly Val Thr
         690             695             700
Gln Ile Gly Tyr Cys Val Gln Asp Thr Thr Ser Ala Asn Thr Thr Leu
705             710             715             720
Val His Gln Thr Thr Pro Ser His Val Met Pro Pro Asn His His Gln
             725             730             735
Leu Ala Phe Asn Tyr Gln Glu Leu Glu His Leu Gln Thr Val Lys Asn
             740             745             750
Ile Ser Pro Leu Gln Ile Leu Pro Pro Ser Gly Asp Ser Glu Gln Leu
         755             760             765
Ser Asn Gly Ile Thr Val Met His Pro Ser Gly Asp Ser Asp Thr Thr
         770             775             780
Met Leu Glu Ser Glu Cys Gln Ala Pro Val Gln Lys Asp Ile Lys Ile
785             790             795             800
Lys Asn Ala Asp Ser Trp Lys Ser Leu Gly Lys Pro Val Lys Pro Ser
             805             810             815
Gly Val Met Lys Ser Ser Asp Glu Leu Phe Asn Gln Phe Arg Lys Ala
             820             825             830
Ala Ile Glu Lys Glu Val Lys Ala Arg Thr Gln Glu Leu Ile Arg Lys
```

-357-

```
          835                     840                     845
His Leu Glu Gln Asn Thr Lys Glu Leu Lys Ala Ser Gln Glu Asn Gln
       850                     855                     860
Arg Asp Leu Gly Asn Gly Leu Thr Val Glu Ser Phe Ser Asn Lys Ile
865                     870                     875                     880
Gln Asn Lys Cys Ser Gly Glu Glu Gln Lys Glu His Pro Gln Ser Ser
                   885                     890                     895
Glu Ala Gln Asp Lys Ser Lys Leu Trp Leu Leu Lys Asp Arg Asp Leu
                900                     905                     910
Ala Arg Pro Lys Glu Gln Glu Arg Arg Arg Arg Glu Ala Met Val Gly
             915                     920                     925
Thr Ile Asp Met Thr Leu Gln Ser Asp Ile Met Thr Met Phe Glu Asn
          930                     935                     940
Asn Phe Asp
945
```

```
         <210> 686
         <211> 3106
         <212> DNA
         <213> Homo Sapiens

         <400> 686
gtggcaagat gttcctggga ggtcaagtta agagtcaaaa ataattcatt agatttaaca      60
atttagcatg gacatgtact tgtagacagg attcaaagca gttaagaatg tctctgccaa     120
gtcgacaaac agctattatt gttaaccctc ctccaccaga atatataaat actaagaaaa     180
atgggcgatt gacaaatcaa cttcagtatc tacaaaaagt tgtcctaaag gatttatgga     240
agcatagttt ttcatggccc tttcaacgtc ctgtggatgc tgtgaaacta aagttgcctg     300
attattatac cattataaaa aacccaatgg atttaaatac aattaagaag cgcttggaga     360
ataaatatta tgcgaaggct tcagaatgta tagaagactt caatacaatg ttctcaaatt     420
gttatttata taacaagcct ggagatgaca ttgttcttat ggcacaagct ctagagaagc     480
tgtttatgca gaaattatct cagatgccac aagaagagca agttgtgggt gttaaggaaa     540
gaatcaagaa aggcactcaa cagaatatag ctgtttcttc tgctaaagaa aaatcatcac     600
ccagcgcaac agaaaaagta tttaagcagc aagaaattcc ttctgtattt cctaagacat     660
ctattctcc cttgaacgtg gtacagggag cttcagtcaa ctccagttca caaactgcgg     720
cccaagttac aaaaggtgtg aagaggaaag cagatacaac aactcctgca acttcagcag     780
ttaaagcaag tagtgaattc tctccaacat tcacagaaaa atcagtggca ctgccaccta     840
taaaagaaaa tatgccaaag aatgttttgc cagattctca gcaacaatat aatgttgtgg     900
agactgttaa agtaactgaa caattaaggc actgtagtga gattcttaaa gaaatgcttg     960
caaagaaaca ttttcatat gcatggccct tttataatcc tgttgacgtt aatgctttgg    1020
gactccataa ctactatgac gttgtcaaaa atccgatgga tcttggaact attaaggaga    1080
aaatggataa ccaagaatat aaggatgcat actcatttgc ggcagatgtt agattaatgt    1140
tcatgaattg ctacaagtac aatcctccag atcacgaagt tgtgacaatg caagaatgc    1200
ttcaggatgt tttcgaaacg cattttttcaa agatcccgat tgaacctgtt gagagtatgc    1260
ctttatgtta catcaaaaca gatatcacag aaaccactgg tagagagaac actaatgaag    1320
cctcctctga agggaactct tctgatgatt ctgaagatga gcgagttaag cgtcttgcaa    1380
agcttcagga gcagcttaaa gctgtacatc aacagctcca ggttttgtcc caagtacctt    1440
tccgtaagct aaataaaaag aaagagaagt ctaaaaagga aagaaaaaaa gaaaaggtta    1500
ataacagcaa tgaaaatcca agaaaaatgt gtgagcaaat gaggctaaag gaaaagtcca    1560
agagaaatca gccaaagaaa aggaaacaac agttcattgg tctaaaatct gaagatgaag    1620
ataatgctaa acctatgaac tatgatgaga aaggcagtt agtctgaat ataaacaaac    1680
tccctggaga taaacttggg cgagtagttc acataataca atcaagagag ccttctctga    1740
gcaattccaa tcctgatgag atagagatag actttgaaac actgaaagca tcaacactaa    1800
gagaattaga aaaatatgtt tcggcatgtc taagaaagag accattaaaa cctcctgcta    1860
agaaaataat gatgtccaaa gaagaacttc actcacagaa aaaacaggaa ttggaaaagc    1920
ggttactgga tgttaataat cagttaaatt ctagaaaacg tcaaacaaaa tctgataaaa    1980
```

```
cgcaaccatc caaagctgtt gaaaatgttt cccgactgag tgagagcagc agcagcagca    2040
gcagctcatc agagtctgaa agtagcagca gtgacttaag ctcttcagac agcagtgatt    2100
ctgaatcaga aatgttccct aagtttacag aagtaaaacc aaatgattct ccttctaaag    2160
agcatgtaaa gaaaatgaag aatgaatgca tactgcctga aggaagaaca ggcgtcacac    2220
agataggata ttgtgtgcaa gacacaacct ctgccaatac tacccttgtt catcagacca    2280
caccttcaca tgtaatgcca ccaaatcacc accaattagc atttaattat caagaattag    2340
aacatttaca gactgtgaaa aacatttcac ctttacaaat tctgcctccc tcaggtgatt    2400
ctgaacagct ctcaaatggc ataactgtga tgcatccatc tggtgatagt gacacaacga    2460
tgttagaatc tgaatgtcaa gctcctgtac agaaggatat aaagattaag aatgcagatt    2520
catggaaaag ttaggcaaa ccagtgaaac catcaggtgt aatgaaatcc tcagatgagc    2580
tcttcaacca atttagaaaa gcagccatag aaaaggaagt aaaagctcgg acacaggaac    2640
tcatacggaa gcatttggaa caaaatacaa aggaactaaa agcatctcaa gaaaatcaga    2700
gggatcttgg gaatggattg actgtagaat cttttcaaa taaaatacaa aacaagtgct    2760
ctggagaaga gcagaaagaa catccgcagt catcagaagc tcaagataaa tccaaactct    2820
ggcttctcaa agaccgtgat ttagccaggc cgaaagaaca agagaggagg aggagagaag    2880
ccatggtggg taccattgat atgacccttc aaagtgacat tatgacaatg tttgaaaaca    2940
actttgatta aaaactcagtt tttaaattaa ccatccactt aaaatgaatg gtaaaagatc    3000
aaaatgcata tggtaaaatg attgctttca gataacaaga taccaatctt atattgtatt    3060
ttgactgctc taaaatgatt aaacagtttt cacttacaaa aaaaaa                   3106
```

        <210> 687
        <211> 1759
        <212> DNA
        <213> Homo Sapiens

        <400> 687

```
gtcactccgc aattagacag ctaagagatc tgtgttactt ccctcacata tataaataat    60
tttaaataaa aatcatggcg tgaataattt ctttcctcta ccgatttgaa gctatccatt    120
tggaagacca ctctgaagag atgaaataag tcttctgcca aagattactt attaatttac    180
aaggaaaagg ggaagttttg ttcctctccg tgaatttgat tgaaaatcga gggctttctc    240
gaatagtttt ggcatccagg gtcatttttc attaaaaaga gaaaagtcat gtcaaatatg    300
aatttccgca gattattcag cactagaccc tgggagattc tgtaaagagg ggttttgtta    360
tactcaactt ttccgggtaa aacaaacaca aatactcctc ctccaagggg cgggggcggt    420
gcctaggtga tgcaccaatc acagcgcgcc ctaccctata taagccccga ggccgcccgg    480
gtgtttcatg cttttcgctg gttattacat cttgcgtttc tctgttgtta tgtctgaaac    540
cgtgcctgca gcttctgcca gtgctggtct agccgctatg gagaaacttc caaccaagaa    600
gcgagggagg aagccggctg gcttgataag tgcaagtcgc aaagtgccga acctctctgt    660
gtccaagttg atcaccgagg ccctttcagt gtcacaggaa cgagtaggta tgtctttggt    720
tgcgctcaag aaggcattgg ccgctgctgg ctacgacgta gagaagaata acagccgcat    780
caaactgtcc ctcaagagct tagtgaacaa gggaatcctg gtgcaaacca ggggtactgg    840
tgcttccggt tcctttaagc ttagtaagaa ggtgattcct aaatctacac gaagcaaggc    900
taaaaagtca gtttctgcca agaccaagaa gctggtttta tccagggact ccaagtcacc    960
aaagactgct aaaaccaata agagagccaa gaagccgaga gcgacaactc ctaaaactgt    1020
taggagcggg agaaaggcta aaggagccaa gggtaagcaa cagcagaaga gcccagtgaa    1080
ggcaagggct tcgaagtcaa aattgaccca acatcatgaa gttaatgtta gaaaggccac    1140
atctaagaag taaagagctt tccgggaggc caatttggaa agaacccaaa ggctctttta    1200
agagccaccc acattatttt aagatggcgt aacactggaa acaagtttct gtgacagtta    1260
tctataggtt taagttgtga tgcagctgag ttgaaaaggc ttgagattgg agaattaatt    1320
caggccaggc ttcaagacca tcctgggcaa catagccaga ctaccatcta taccaggggt    1380
cctcattccc ccggccaccg accggtaacc ggtccctgtc catggcacgt tatgaattga    1440
gccgcacagc tgaggggtga gcgaacatta accaactgag ctccaccgcc tgtcaggtta    1500
gctgcagcat tagatagatt ctcataagct caaactgtat tgtgaatggc acatgcaagg    1560
gatctaggtt tcaggctcct tgtgacaatc taatgcctga tgatctgagg ttggagcagt    1620
tttagtccgg aaatcattgc tcccagcccc tgcacccccct ggtccgtggt ataattgtct    1680
tacacaaacg gtctcttgtg tcaaaaaggt tggagactac tggtttttac aaaaaagtaa    1740
```

                                    -359-

attagtcaag catggttgg   1759

```
        <210> 688
        <211> 207
        <212> PRT
        <213> Homo Sapiens


        <400> 688
Met Ser Glu Thr Val Pro Ala Ala Ser Ala Ser Ala Gly Leu Ala Ala
 1               5                  10                  15
Met Glu Lys Leu Pro Thr Lys Lys Arg Gly Arg Lys Pro Ala Gly Leu
            20                  25                  30
Ile Ser Ala Ser Arg Lys Val Pro Asn Leu Ser Val Ser Lys Leu Ile
        35                  40                  45
Thr Glu Ala Leu Ser Val Ser Gln Glu Arg Val Gly Met Ser Leu Val
    50                  55                  60
Ala Leu Lys Lys Ala Leu Ala Ala Ala Gly Tyr Asp Val Glu Lys Asn
65                  70                  75                  80
Asn Ser Arg Ile Lys Leu Ser Leu Lys Ser Leu Val Asn Lys Gly Ile
                85                  90                  95
Leu Val Gln Thr Arg Gly Thr Gly Ala Ser Gly Ser Phe Lys Leu Ser
            100                 105                 110
Lys Lys Val Ile Pro Lys Ser Thr Arg Ser Lys Ala Lys Lys Ser Val
        115                 120                 125
Ser Ala Lys Thr Lys Lys Leu Val Leu Ser Arg Asp Ser Lys Ser Pro
    130                 135                 140
Lys Thr Ala Lys Thr Asn Lys Arg Ala Lys Lys Pro Arg Ala Thr Thr
145                 150                 155                 160
Pro Lys Thr Val Arg Ser Gly Arg Lys Ala Lys Gly Ala Lys Gly Lys
                165                 170                 175
Gln Gln Gln Lys Ser Pro Val Lys Ala Arg Ala Ser Lys Ser Lys Leu
            180                 185                 190
Thr Gln His His Glu Val Asn Val Arg Lys Ala Thr Ser Lys Lys
        195                 200                 205


        <210> 689
        <211> 1464
        <212> DNA
        <213> Homo Sapiens


        <400> 689
agtaccgggt acgcaggggt gcctcaacca cactccgtcc acggactctc cgttatttta     60
ggaggtccct ggccaaagat ttatttctct tgacaaccaa gggcctccgt ctggatttcc    120
aaggaagaat ttcctctgaa gcaccggaac ttgctactac cagcaccatg ccctaccaat    180
atccagcact gaccccggag cagaagaagg agctgtctga catcgctcac cgcatcgtgg    240
cacctggcaa gggcatcctg gctgcagatg agtccactgg gagcattgcc aagcggctgc    300
agtccattgg caccgagaac accgaggaga accggcgctt ctaccgccag ctgctgctga    360
cagctgacga ccgcgtgaac ccctgcattg ggggtgtcat cctcttccat gagacactct    420
accagaaggc ggatgatggg cgtcccttcc cccaagttat caaatccaag ggcggtgttg    480
tgggcatcaa ggtagacaag ggcgtggtcc ccctggcagg gacaaatggc gagactacca    540
cccaaggggtt ggatgggctg tctgagcgct gtgcccagta caagaaggac ggagctgact    600
tcgccaagtg gcgttgtgtg ctgaagattg ggaacacac ccctcagcc ctcgccatca    660
tggaaaatgc caatgttctg gccgttatg ccagtatctg ccagcagaat ggcattgtgc    720
ccatcgtgga gcctgagatc ctccctgatg gggaccatga cttgaagcgc tgccagtatg    780
tgaccgagaa ggtgctggct gctgtctaca aggctctgag tgaccaccac atctacctgg    840
```

-360-

```
aaggcacctt gctgaagccc aacatggtca ccccaggcca tgcttgcact cagaagtttt      900
ctcatgagga gattgccatg gcgaccgtca cagcgctgcg ccgcacagtg cccccgctg       960
tcactgggat caccttcctg tctggaggcc agagtgagga ggaggcgtcc atcaacctca     1020
atgccattaa caagtgcccc ctgctgaagc cctgggccct gaccttctcc tacggccgag     1080
ccctgcaggc ctctgccctg aaggcctggg gcgggaagaa ggagaacctg aaggctgcgc     1140
aggaggagta tgtcaagcga gccctggcca acagccttgc ctgtcaagga aagtacactc     1200
cgagcggtca ggctggggct gctgccagcg agtccctctt cgtctctaac cacgcctatt     1260
aagcggaggt gttcccaggc tgcccccaac aactccaggc cctgcccct cccactcttg       1320
aagaggaggc cgcctcctcg gggctccagg ctggcttgcc cgcgctcttt cttccctcgt     1380
gacagtggtg tgtggtgtcg tctgtgaatg ctaagtccat cacccttttcc ggcacactgc    1440
caaataaaca gctatttaag gggg                                            1464
```

```
    <210> 690
    <211> 363
    <212> PRT
    <213> Homo Sapiens

    <400> 690
Pro Tyr Gln Tyr Pro Ala Leu Thr Pro Glu Gln Lys Lys Glu Leu Ser
1               5                   10                  15
Asp Ile Ala His Arg Ile Val Ala Pro Gly Lys Gly Ile Leu Ala Ala
            20                  25                  30
Asp Glu Ser Thr Gly Ser Ile Ala Lys Arg Leu Gln Ser Ile Gly Thr
        35                  40                  45
Glu Asn Thr Glu Glu Asn Arg Arg Phe Tyr Arg Gln Leu Leu Leu Thr
    50                  55                  60
Ala Asp Asp Arg Val Asn Pro Cys Ile Gly Gly Val Ile Leu Phe His
65                  70                  75                  80
Glu Thr Leu Tyr Gln Lys Ala Asp Asp Gly Arg Pro Phe Pro Gln Val
                85                  90                  95
Ile Lys Ser Lys Gly Gly Val Val Gly Ile Lys Val Asp Lys Gly Val
            100                 105                 110
Val Pro Leu Ala Gly Thr Asn Gly Glu Thr Thr Thr Gln Gly Leu Asp
        115                 120                 125
Gly Leu Ser Glu Arg Cys Ala Gln Tyr Lys Lys Asp Gly Ala Asp Phe
    130                 135                 140
Ala Lys Trp Arg Cys Val Leu Lys Ile Gly Glu His Thr Pro Ser Ala
145                 150                 155                 160
Leu Ala Ile Met Glu Asn Ala Asn Val Leu Ala Arg Tyr Ala Ser Ile
                165                 170                 175
Cys Gln Gln Asn Gly Ile Val Pro Ile Val Glu Pro Glu Ile Leu Pro
            180                 185                 190
Asp Gly Asp His Asp Leu Lys Arg Cys Gln Tyr Val Thr Glu Lys Val
            195                 200                 205
Leu Ala Ala Val Tyr Lys Ala Leu Ser Asp His His Ile Tyr Leu Glu
        210                 215                 220
Gly Thr Leu Leu Lys Pro Asn Met Val Thr Pro Gly His Ala Cys Thr
225                 230                 235                 240
Gln Lys Phe Ser His Glu Glu Ile Ala Met Ala Thr Val Thr Ala Leu
                245                 250                 255
Arg Arg Thr Val Pro Pro Ala Val Thr Gly Ile Thr Phe Leu Ser Gly
            260                 265                 270
Gly Gln Ser Glu Glu Glu Ala Ser Ile Asn Leu Asn Ala Ile Asn Lys
        275                 280                 285
Cys Pro Leu Leu Lys Pro Trp Ala Leu Thr Phe Ser Tyr Gly Arg Ala
```

```
        290                    295                 300
Leu Gln Ala Ser Ala Leu Lys Ala Trp Gly Gly Lys Lys Glu Asn Leu
305                    310                 315                 320
Lys Ala Ala Gln Glu Glu Tyr Val Lys Arg Ala Leu Ala Asn Ser Leu
                325                 330                 335
Ala Cys Gln Gly Lys Tyr Thr Pro Ser Gly Gln Ala Gly Ala Ala Ala
                340                 345                 350
Ser Glu Ser Leu Phe Val Ser Asn His Ala Tyr
        355                 360
```

```
        <210> 691
        <211> 1216
        <212> DNA
        <213> Homo Sapiens

        <400> 691
atgctcctcg atgtggagcc gctggagcct acacttagca acatcatcga gcagcgcagc    60
ctgaagtgga tcttcgtcgg gggcaagggt ggtgtgggca agaccacctg cagctgcagc   120
ctggcagtcc agctctccaa ggggcgtgag agtgttctga tcatctccac agacccagca   180
cacaacatct cagatgcttt tgaccagaag ttctcaaagg tgcctaccaa ggtcaaaggc   240
tatgacaacc tctttgctat ggagattgac cccagcctgg gcgtggcgga cgtgcctgac   300
gagttcttcg aggaggacaa catgctgagc atgggcaaga agatgatgca ggaggccatg   360
agcgcatttc ccggcatcga tgaggccatg agctatgccg aggtcatgag gctggtgaag   420
ggcatgaact tctcggtggt ggtatttgac acggcaccca cgggccacac cctgaggctg   480
ctcaacttcc ccaccatcgt ggagcggggc ctgggccggc ttatgcagat caagaaccag   540
atcagccctt tcatctcaca gatgtgcaac atgctgggcc tggggacat gaacgcagac   600
cagctggcct ccaagctgga ggagacgctg cccgtcatcc gctcagtcag cgaacagttc   660
aaggaccctg agcagacaac tttcatctgc gtatgcattg ctgagttcct gtccctgtat   720
gagacagaga ggctgatcca ggagctggcc aagtgcaaga ttgacacaca caatataatt   780
gtcaaccagc tcgtcttccc cgaccccgag aagccctgca agatgtgtga ggcccgtcac   840
aagatccagg ccaagtatct ggaccagatg gaggacctgt atgaagactt ccacatcgtg   900
aagctgccgc tgttacccca tgaggtgcgg ggggcagaca aggtcaacac cttctcggcc   960
ctcctcctgg agccctacaa gccccccagt gcccagtagc acagctgcca gccccaaccg  1020
ctgccatttc acactcaccc tccaccctcc ccacccctc ggggcagagt ttgcacaaag  1080
tcccccccat aatacagggg gagccacttg ggcaggaggc agggaggggt ccattccccc  1140
tggtggggct ggtggggagc tgtagttgcc ccctacctct cccacctctt gctcttcaat  1200
aaatgatctt aaactg                                                  1216
```

```
        <210> 692
        <211> 1958
        <212> DNA
        <213> Homo Sapiens

        <400> 692
gctgctgcgc ccgcggctcc ccagtgcccc gagtgccccg cgggccccgc gagcgggagt    60
gggacccagc cctaggcaga acccaggcgc cgcgccgggg acgccgcgg agagagccac   120
tcccgcccac gtcccatttc gcccctcgcg tccggagtcc ccgtggccag atctaaccat   180
gagctaccct ggctatcccc cgcccccagg tggctaccca ccagctgcac caggtggtgg   240
tccctgggga ggtgctgcct accctcctcc gcccagcatg cccccccatcg ggctggataa   300
cgtggccacc tatgcggggc agttcaacca ggactatctc tcgggaatgg cggccaacat   360
gtctgggaca tttgaggag ccaacatgcc caacctgtac cctggggccc ctggggctgg   420
ctacccacca gtgccccctg cggcctttgg gcagcccccc tctgcccagc agcctgttcc   480
tccctatggg atgtatccac ccccaggagg aaacccaccc tccaggatgc cctcatatcc   540
gccataccca ggggcccctg tgccggggcca gcccatgcca cccccggac agcagccccc   600
agggggcctac cctgggcagc caccagtgac ctaccctggt cagcctccag tgccactccc   660
```

```
tgggcagcag cagccagtgc cgagctaccc aggataccccg gggtctgggga ctgtcacccc     720
cgctgtgccc ccaacccagt ttggaagccg aggcaccatc actgatgctc ccggctttga     780
cccctgcga datgccgagg tcctgcggaa ggccatgaaa ggcttcgggga cggatgagca     840
ggccatcatt gactgcctgg ggagtcgctc caacaagcag cggcagcaga tcctactttc     900
cttcaagacg gcttacggca aggatttgat caaagatctg aaatctgaac tgtcaggaaa     960
ctttgagaag acaatcttgg ctctgatgaa gaccccagtc ctctttgaca tttatgagat    1020
aaaggaagcc atcaaggggg ttggcactga tgaagcctgc ctgattgaga tcctcgcttc    1080
ccgcagcaat gagcacatcc gagaattaaa cagagcctac aaagcagaat tcaaaaagac    1140
cctggaagag gccattcgaa gcgacacatc agggcacttc cagcggctcc tcatctctct    1200
ctctcaggga aaccgtgatg aaagcacaaa cgtggacatg tcactcgccc agagagatgc    1260
ccaggagctg tatgcggccg gggagaaccg cctgggaaca gacgagtcca gttcaatgc     1320
ggttctgtgc tcccggagcc gggcccacct ggtagcagtt ttcaatgagt accagagaat    1380
gacaggccgg gacattgaga agagcatctg ccgggagatg tccggggacc tggaggaggg    1440
catgctggcc gtggtgaaat gtctcaagaa tacccccagcc ttctttgcgg agaggctcaa    1500
caaggccatg aggggggcag gaacaaagga ccggaccctg attcgcatca tggtgtctcg    1560
cagcgagacc gacctcctgg acatcagatc agagtataag cggatgtacg gcaagtcgct    1620
gtaccacgac atctcgggag atacttcagg ggattaccgg aagattctgc tgaagatctg    1680
tggtggcaat gactgaacag tgactggtgg ctcacttctg cccacctgcc ggcaacacca    1740
gtgccaggaa aaggccaaaa gaatgtctgt ttctaacaaa tccacaaata gccccgagat    1800
tcaccgtcct agagcttagg cctgtcttcc accccctcctg acccgtatag tgtgccacag    1860
gacctgggtc ggtctagaac tctctcagga tgcctttttct accccatccc tcacagcctc    1920
ttgctgctaa aatagatgtt tcattttttct gaaaaaaa                            1958
```

        <210> 693
        <211> 505
        <212> PRT
        <213> Homo Sapiens

        <400> 693
```
Met Ser Tyr Pro Gly Tyr Pro Pro Pro Gly Gly Tyr Pro Pro Ala
 1               5                  10                  15
Ala Pro Gly Gly Gly Pro Trp Gly Gly Ala Ala Tyr Pro Pro Pro
            20                  25                  30
Ser Met Pro Pro Ile Gly Leu Asp Asn Val Ala Thr Tyr Ala Gly Gln
        35                  40                  45
Phe Asn Gln Asp Tyr Leu Ser Gly Met Ala Ala Asn Met Ser Gly Thr
        50                  55                  60
Phe Gly Gly Ala Asn Met Pro Asn Leu Tyr Pro Gly Ala Pro Gly Ala
65                  70                  75                  80
Gly Tyr Pro Pro Val Pro Pro Gly Gly Phe Gly Gln Pro Pro Ser Ala
                85                  90                  95
Gln Gln Pro Val Pro Pro Tyr Gly Met Tyr Pro Pro Gly Gly Asn
            100                 105                 110
Pro Pro Ser Arg Met Pro Ser Tyr Pro Pro Tyr Pro Gly Ala Pro Val
            115                 120                 125
Pro Gly Gln Pro Met Pro Pro Gly Gln Gln Pro Pro Gly Ala Tyr
            130                 135                 140
Pro Gly Gln Pro Pro Val Thr Tyr Pro Gly Gln Pro Pro Val Pro Leu
145                 150                 155                 160
Pro Gly Gln Gln Gln Pro Val Pro Ser Tyr Pro Gly Tyr Pro Gly Ser
                165                 170                 175
Gly Thr Val Thr Pro Ala Val Pro Pro Thr Gln Phe Gly Ser Arg Gly
            180                 185                 190
Thr Ile Thr Asp Ala Pro Gly Phe Asp Pro Leu Arg Asp Ala Glu Val
            195                 200                 205
```

-363-

```
Leu Arg Lys Ala Met Lys Gly Phe Gly Thr Asp Glu Gln Ala Ile Ile
    210                 215                 220
Asp Cys Leu Gly Ser Arg Ser Asn Lys Gln Arg Gln Gln Ile Leu Leu
225                 230                 235                 240
Ser Phe Lys Thr Ala Tyr Gly Lys Asp Leu Ile Lys Asp Leu Lys Ser
                245                 250                 255
Glu Leu Ser Gly Asn Phe Glu Lys Thr Ile Leu Ala Leu Met Lys Thr
                260                 265                 270
Pro Val Leu Phe Asp Ile Tyr Glu Ile Lys Glu Ala Ile Lys Gly Val
                275                 280                 285
Gly Thr Asp Glu Ala Cys Leu Ile Glu Ile Leu Ala Ser Arg Ser Asn
        290                 295                 300
Glu His Ile Arg Glu Leu Asn Arg Ala Tyr Lys Ala Glu Phe Lys Lys
305                 310                 315                 320
Thr Leu Glu Glu Ala Ile Arg Ser Asp Thr Ser Gly His Phe Gln Arg
                325                 330                 335
Leu Leu Ile Ser Leu Ser Gln Gly Asn Arg Asp Glu Ser Thr Asn Val
                340                 345                 350
Asp Met Ser Leu Ala Gln Arg Asp Ala Gln Glu Leu Tyr Ala Ala Gly
                355                 360                 365
Glu Asn Arg Leu Gly Thr Asp Glu Ser Lys Phe Asn Ala Val Leu Cys
    370                 375                 380
Ser Arg Ser Arg Ala His Leu Val Ala Val Phe Asn Glu Tyr Gln Arg
385                 390                 395                 400
Met Thr Gly Arg Asp Ile Glu Lys Ser Ile Cys Arg Glu Met Ser Gly
                405                 410                 415
Asp Leu Glu Glu Gly Met Leu Ala Val Val Lys Cys Leu Lys Asn Thr
                420                 425                 430
Pro Ala Phe Phe Ala Glu Arg Leu Asn Lys Ala Met Arg Gly Ala Gly
        435                 440                 445
Thr Lys Asp Arg Thr Leu Ile Arg Ile Met Val Ser Arg Ser Glu Thr
    450                 455                 460
Asp Leu Leu Asp Ile Arg Ser Glu Tyr Lys Arg Met Tyr Gly Lys Ser
465                 470                 475                 480
Leu Tyr His Asp Ile Ser Gly Asp Thr Ser Gly Asp Tyr Arg Lys Ile
                485                 490                 495
Leu Leu Lys Ile Cys Gly Gly Asn Asp
            500                 505
```

```
        <210> 694
        <211> 1141
        <212> DNA
        <213> Homo Sapiens

        <400> 694
        cgcagcttgc aaatggcgtc tccctcgctg gagcggccag aaaaaggcgc tggaaaaagt     60
        gaatttcgta accagaagcc gaagccggag aaccaagatg aatcagaact ccttacggtt    120
        cctgatggtt ggaaggaacc agcttttcc aaagaggaca atcccagagg acttttggag    180
        gagagcagtt tcgcaacttt gttcccaaaa tacagggaag cttacttgaa agagtgttgg    240
        ccattggtgc agaaagcctt aaatgaacat catgttaatg caaccctgga cctgatcgaa    300
        ggcagcatga ctgtttgtac tacaaagaag acttttgatc catatatcat cattagggcc    360
        agagatctga taaaactgtt agcaaggagt gtttcatttg aacaggcagt acgaattctt    420
        caggatgatg ttgcatgtga catcattaaa ataggttctt tagtaaggaa taaagagaga    480
        tttgtaaaac gaagacaacg gcttattggt cccaaaggat ctacattgaa ggcattggaa    540
        ctcttaacta attgttacat tatggttcag ggaaacacag tttcagccat tggacctttt    600
```

-364-

```
agtggcttaa aagaggttag aaaagtagtc cttgatacta tgaagaatat tcatccaatt    660
tataacatta aaagcttaat gattaagaga gagttggcaa aagattctga attacgatca    720
caaagttggg agagattttt gccacagttc aaacacaaaa atgtgaataa acgcaaggaa    780
ccaaagaaaa aaactgttaa gaaagatata cgccattccc accaccacaa ccagaaagtc    840
agatcgataa agaattggct agtggtgaat acttttttgaa ggcaaatcag aagaagcggc    900
agaaaatgaa gcaataaagg ctaaacaagc agaagccatc agtaagagac aagaggaaag    960
aaacaaagca tttattccac ctaaggaaaa accaattgtg aaacctaagg aagcttctac   1020
tgaaactaaa attgatgtgg ccagcatcaa ggaaaaggtt aagaaagcaa agaataagaa   1080
actgggagct cttacagctg aagaaattgc acttaagatg gaggcagatg aaaaaaaaaa   1140
a                                                                    1141
```

```
        <210> 695
        <211> 288
        <212> PRT
        <213> Homo Sapiens

        <400> 695
Met Ala Ser Pro Ser Leu Glu Arg Pro Glu Lys Gly Ala Gly Lys Ser
1               5                   10                  15
Glu Phe Arg Asn Gln Lys Pro Lys Pro Glu Asn Gln Asp Glu Ser Glu
                20                  25                  30
Leu Leu Thr Val Pro Asp Gly Trp Lys Glu Pro Ala Phe Ser Lys Glu
            35                  40                  45
Asp Asn Pro Arg Gly Leu Leu Glu Glu Ser Ser Phe Ala Thr Leu Phe
        50                  55                  60
Pro Lys Tyr Arg Glu Ala Tyr Leu Lys Glu Cys Trp Pro Leu Val Gln
65                  70                  75                  80
Lys Ala Leu Asn Glu His His Val Asn Ala Thr Leu Asp Leu Ile Glu
                85                  90                  95
Gly Ser Met Thr Val Cys Thr Thr Lys Lys Thr Phe Asp Pro Tyr Ile
            100                 105                 110
Ile Ile Arg Ala Arg Asp Leu Ile Lys Leu Leu Ala Arg Ser Val Ser
        115                 120                 125
Phe Glu Gln Ala Val Arg Ile Leu Gln Asp Asp Val Ala Cys Asp Ile
    130                 135                 140
Ile Lys Ile Gly Ser Leu Val Arg Asn Lys Glu Arg Phe Val Lys Arg
145                 150                 155                 160
Arg Gln Arg Leu Ile Gly Pro Lys Gly Ser Thr Leu Lys Ala Leu Glu
                165                 170                 175
Leu Leu Thr Asn Cys Tyr Ile Met Val Gln Gly Asn Thr Val Ser Ala
            180                 185                 190
Ile Gly Pro Phe Ser Gly Leu Lys Glu Val Arg Lys Val Val Leu Asp
        195                 200                 205
Thr Met Lys Asn Ile His Pro Ile Tyr Asn Ile Lys Ser Leu Met Ile
    210                 215                 220
Lys Arg Glu Leu Ala Lys Asp Ser Glu Leu Arg Ser Gln Ser Trp Glu
225                 230                 235                 240
Arg Phe Leu Pro Gln Phe Lys His Lys Asn Val Asn Lys Arg Lys Glu
                245                 250                 255
Pro Lys Lys Lys Thr Val Lys Lys Asp Ile Arg His Ser His His His
            260                 265                 270
Asn Gln Lys Val Arg Ser Ile Lys Asn Trp Leu Val Val Asn Thr Phe
        275                 280                 285


        <210> 696
```

```
       <211> 1008
       <212> DNA
       <213> Homo Sapiens

       <400> 696
agcaggctag gaagactgca tcagttctta gtaaagatga tgtggcacct gaaagtggtg      60
atactacagt gaagaaacct gaatcaaaga aggaacagac cccagagcat gggaagaaaa     120
aacgtggcag aggaaaagcc caagttaaag caacaaatga atccgaagac gaaatcccac     180
agctggtacc aataggaaag aagactccag ctaatgaaaa agtagagatt caaaaacatg     240
ccacagggaa gaagtctcca gcaaagagtc ctaatcccag cacacctcgt gggaagaaaa     300
agaaaggctt tgccagcatc tgagacccca aaagctgcag agtctgagac cccagggaaa     360
agcccagaga agaagcctaa aatcaaagaa gaggcagtga aggaaaaaag tccttcgctg     420
gggaaaaaag atgcgagaca gactcccaaa aaagccagag gccaagtttt tcaccattcc     480
tagtaaatct gtgagaaaag cttcccacac ccccaaaaaa tggcccaaaa aacccaaagt     540
acccccagtcg acctaaagtc agtgattcaa ctggaaggaa acctcaatgc tgcctccaga     600
gcttttttgga aatactcaga tcctggccgc ctttgtaacc ttctctaaac gtcaggcctg     660
gacttaaaag attttttaaa acctccataa gtagtccagg ggcggtggct cacgcctgta     720
atcccagcac tttgggaggc cgaggcaggc ggatcacaag gtcaacgaga tcgagaccat     780
cctggccaac atggtgaaac cctgtctgta ccaaaaatac aaaaattaat tgggcatggt     840
ggtggacacc tgtaatccca gctactaggg aggctgaggc aggagaattg cttgaacctg     900
ggaggcggag gttgcagtga gccactgcac tccagcctga tgacagagca agactcagtc     960
tcaaaaataa ataaaaataa taaaacctcc ataagtaatc ctgaaaaa                 1008

       <210> 697
       <211> 685
       <212> DNA
       <213> Homo Sapiens

       <400> 697
acgagctgca ctccagcctg ggcgacagag ggaaactcca tctcaaaaaa aaaaanaaaa      60
aaaaaanaaa aagaaaaaag anaatgccca gcgcggtggc taatgcctgt aaccctagtg     120
agacagccaa gtaaaaacgg ctcccaagac aatctacaag cactgggagg atggggtgca     180
gcaccaaaat gttcacacca tttgcagagg ggaacagcct ggcccctgct gttccaggat     240
agtaaccagg aattcagttg gtgagatgga cagcctgtta gcaggactcc atctcacttt     300
gctgtgttgt ctttttccc ttttgcccaa taaattngta accctcacc tttcaaagtg       360
tctgcgtgcc taatctttcc ctgccatgtg accagaaccc ggtttgttt acaacaccag      420
cactttggga ggcgaagatg ggctgattgc ttgagctcag gggtttaaga acagcctggg     480
caacatagtg aaaccctagt ttttaccaaa aatacgaaaa ttaaccaggc atgcctgtta     540
tcccagctga ggcacaagaa tcccttgaac ccaggaggcn gaannctaat tnnaacccga     600
aaatttgcnc ccactggccc ccccaggcgg aagctagtga gccgagattg cgccactgca     660
cccctgagac gctgtntcaa aaaaa                                          685

       <210> 698
       <211> 1205
       <212> DNA
       <213> Homo Sapiens

       <400> 698
ggcacgaggg tgtaggccgc tgcaggccnc catganccgg cttccggatg actacgaccc      60
ctacgcggtt gaagagccta gcgacgagga ccggctttg agcagctctg aggatgaagt      120
ggatgtgctt ttacatggaa ctcctgacca aaaacgaaaa ctcatcagag aatgtcttac     180
cggagaaagt gaatcatcta gtgaagatga atttgaaaag gagatggaag ctgaattaaa     240
ttctaccatg aaaacaatgg aggacaagtt atcctctctg ggaactggat cttcctcagg     300
aaatggaaaa gttgcaacag ctccgacaag gtactacgat gatatatatt ttgattctga     360
ttccgaggat gaagacagag cagtacaggt gaccaagaaa aaaagaagaa acaacacaa      420
```

```
gattccaaca aatgacgaat tactgtntga tcctgaaaaa gataacagag atcaggcctg       480
ggttgatgca cagagaaggg gttaccatgg tttgggacca cagagatcac gtcaacaaca       540
gcctgttcca aatagtgatg ctgtcttgan ttgtcctgcc tgcatgacca cactttgcct       600
tgattgccaa aggcatgant catacaaaac tcaatataga gcaatgtttg taatgaattg       660
ttctattaac aaagaggagg ttctaagata taaagcctca gagaacagga agaaaaggcg       720
ggtccataag aagatgaggt ctaaccggga agatgctgcc gagaaggcag agacagatgt       780
ggaagaaatc tatcacccag tcatgtgcac tgaatgttcc actgaagtgg cagtctacga       840
caaggatgaa gtctttcatt ttttcaatgt tttagcaagc cattcctaaa cagcccaact       900
ggcatttaat tacccaatac tgtatataag gcaaatatgg acagttactt tcctcttgcc       960
tgttcatatc cttcagtgac attgaggaag cagtgtttct ctttttaaag gagaatagtt      1020
gtcaaccttc attcatctct tacatctctc accctctcct ttttttttc tttgatttc       1080
ccccttattg atgggactga tattcattct gttttgatg aacatttgga aactgtcggg      1140
cttttatta aagctctgta gaattaaaat gttctggaat tataagcaaa aaaaaaaaa      1200
aaaaa                                                                 1205
```

        <210> 699
        <211> 1427
        <212> DNA
        <213> Homo Sapiens

        <400> 699
```
anannnctgg agccgcgcgc ctcgcaggtc gacactagtg gatccaaaga attcggcacg        60
agcagtggta gcaaatgaag ccaaactgta tcttgaaaaa cctgttgttc ctttaaatat       120
gatgttgcca caagctgcat tggagactca ttgcagtaat atttccaatg tgccacctac       180
aagagagata cttcaagtct ttcttactga tgtacacatg aaggaagtaa ttcagcagtt       240
cattgatgtc ctgagtgtag cagtcaagaa acgtgtcttg tgtttaccta gggatgaaaa       300
cctgacagca aatgaagttt tgaaaacgtg tgataggaaa gcaaatgttg caatcctgtt       360
ttctgggggc attgattcca tggttattgc aacccttgct gaccgtcata ttcctttaga       420
tgaaccaatt gatcttctta atgtagcttt catagctgaa gaaaagacca tgccaactac       480
ctttaacaga gaagggaata aacagaaaaa taaatgtgaa ataccttcag aagaattctc       540
taaagatgtt gctgctgctg ctgctgacag tcctaataaa catgtcagtg taccagatcg       600
aatcacagga agggcgggac taaaggaact acaagctgtt agcccttccc gaatttggaa       660
ttttgttgaa attaatgttt ctatggaaga actgcagaaa ttaagaagaa ctcgaatatg       720
tcacttaatt cggccattgg atacagtttt ggatgatagc attggctgtg cagtctggtt       780
tgcttctaga ggaattggtt ggttagtggc ccaggaagga gtgaaatcct atcagagcaa       840
tgcaaaggta gttctcactg gaattggtgc agatgagcaa cttgcaggtt attctcgtca       900
tcgtgtccgc tttcagtcgc atgggctgga aggattgaat aaggaaataa tgatggaact       960
gggtcgaatt tcttctagaa atcttggtcg tgatgacaga gttattggtg atcatggaaa      1020
agaagcaaga tttcctttcc tggatgaaaa tgttgtctcc tttctaaatt ctctgccgat      1080
ttgggaaaaa gcaaacttga ctttaccccg aggaattggt gaaaaattac ttttacgcct      1140
tgcagctgtg gaacttggtc ttacagcctc tgctcttctc gccaaacggg ccatgcagtt      1200
tggatcaaga attgcaaaaa tggaaaaaat taatgaaaag gcatctgata aatgtggacg      1260
gctccaaatc atgtccttag aaaatctttc tattgaaaag gagactaaat tgtaatgtga      1320
ttcacaatgt aacaatataa aaataagttt ttatataatt atataaaagt aagatactct      1380
gctgctttac tattgtataa tatagtagtt ttaaagttca aaaaaaa                    1427
```

        <210> 700
        <211> 1967
        <212> DNA
        <213> Homo Sapiens

        <400> 700
```
ggcacgaggg aaagaggtac gaaatgatga aggaaaagta attcggttcc attgtaaatt        60
atgcgagtgc agctttaatg atcccaatgc taaggagatg cacttaaaag ggcgaagaca       120
cagacttcaa tataaaaaaa aagtaaatcc agatttgcaa gtagaagtaa agcctagtat       180
```

```
tcgagcaaga aagattcaag aagagaaaat gaggaagcaa atgcagaagg aggagtactg     240
gcgaagacga gaagaagagg agcgttggag aatggaaatg agacgttatg aagaggacat     300
gtactggagg agaatggagg aagaacaaca tcattgggat gatcgccgcc gaatgccaga     360
tggaggttat cctcatggtc ctccaggccc attaggcctt ctgggagtcc gaccaggcat     420
gcctcctcag cctcaggggc ctgcaccctt acgtcgtcct gactcatctg atgaccgttt     480
ctgggagtcc gaccaggcat gcctcctcag cctcaggggc ctgcaccctt acgtcgtcct     540
gactcatctg atgaccgtta tgtaatgaca aaacatgcca ccatttatcc aactgaagag     600
gagttacagg cagttcagaa aattgtttct attactgaac gtgctttaaa actcgtttca     660
gacagtttgt ctgaacatga gaagaacaag aacaaagagg gagatgataa gaaagaggga     720
ggtaaagaca gagctttgaa aggagttttg cgagtgggag tatttgcaaa agggattact     780
tctcccggag atagaaatgt caaccttgtt ttgctgtgtc agagaaacct tcaaagacat     840
tattaagccg tattgcagaa aacctaccca aacagcttgc tgttataagc cctgagaagt     900
atgacataaa atgtgctgta tctgaagcgg caataatttt gaattcatgt gtggaaccca     960
aaatgcaagt cactatcaca ctgacatctc caattattcg agaagagaac atgagggaag    1020
gagatgtaac ctcgggtatg gtgaaagacc caccggacgt cttggacagg caaaaatgcc    1080
ttgacgctct ggctgctcta cgccacgcta agtggttcca ggctagagct aatggtctgc    1140
agtcctgtgt gattatcata cgcattcttc gagacctctg tcagcgagtt ccaacttggt    1200
ctgattttcc aagctgggct atggagttac tagtagagaa agcaatcagc agtgcttcta    1260
gccctcagag ccctggggat gcactgagaa gagttttttga atgcatttct tcagggatta    1320
ttcttaaagg tagtcctgga cttctggatc cttgtgaaaa ggatcccttt gataccttgg    1380
caacaatgac tgaccagcag cgtgaagaca tcacatccag tgcacagttt gcattgagac    1440
tccttgcatt ccgccagata cacaaagttc taggcatgga tccattaccg caaatgagcc    1500
aacgttttaa catccacaac aacaggaaac gaagaagaga tagtgatgga gttgatggat    1560
ttgaagctga ggggaaaaaa gacaaaaaag attatgataa ctttttaaaaa gtgtctgtaa    1620
atcttcagtg ttaaaaaaac agatgcccat ttgttggctg tttttcattc ataataatgt    1680
ctacattgaa aaatttatca agaatttaaa ggatttcatg gaagaaccaa gttttttctat    1740
gatattaaaa aatgtacagt gttaggtatt atttgaatgg aaagacaccc aaaaaaaaaa    1800
atgtgctccg actagggga aaacagtagt tccgattttt tcccattatt tttatttat    1860
tttctggttg ccctagcttc ccccctatt tttgtgtctt ttattaacta gtgcattgtc    1920
ttattaaatc ttcactgtat taaaaaaaga aaaaaaaaa acaaaaa              1967
```

```
        <210> 701
        <211> 3423
        <212> DNA
        <213> Homo Sapiens

        <400> 701
ggtgaagaat gaaatcgtgg cgaatgtggg gaaaagagaa atcttgcaca atactgagaa      60
agaacaacac acagaggaca cagtgaagga ttgtgtggac atagaggtat tcactgctgg     120
tgagaatacc gaggaccaga aatcctctga agacactgcc ccattcctag gaaccttagc     180
aggtgctacc tatgaggaac aggttcaaag ccaaattctt gagagcgctt ctctccctga     240
aaacacagca caggttgagt caaatgaggt catgggtgca ccagatgaca ggaccagaac     300
tccccttgag ccatccaact gttggagtga cttagatggt gggagccaca cagagaatgt     360
gggagaggca gcggtgactc tccccttgag ccatccaact gttggagtga cttagatggt     420
gggagccaca cagagaatgt gggagaggca gcagtgactc aggttgaaga gcaggcaggc     480
acagtggcct cgtgtccttt agggcatagt gatgacacag tttatcatga tgacaaatgt     540
atggtagagg tcccccaaga gttagagaca agcacaggc atagtttgga gaaagaattc     600
accaaccagg aagcagctga gcccaaggag gttccagcgc acagtacaga agtaggtagg     660
gatcacaacg aagaagaggg tgaagaaaca ggattaaggg acgagaaacc aatcaagaca     720
gaattcctgg ttctccagca ggaactgagg gcaactgtca ggaagcgaca ggtccaagta     780
cagtagacac tcaaaatgaa cccttagata tgaaagagcc cgatgaagaa aagagtgacc     840
aacagggaga ggcattggac catcgcagaa gaagacaaag aacaagaaaa aaaaaaaaaa     900
aaaaaaagcg ggttctaggg cgccgggcgc tcgggcctcg gccatggctc acaggccgaa     960
aaggactttt cggcagcgcg cggctgattc cagcgacagc gatggcgccg aggagtcgcc    1020
tgctgagcct ggggcgccga gggaacttcc ggtcccgggt tctgcggagg aagagccgcc    1080
```

```
ctctggagga ggccgcgcgc aggtggcggg actgccccac cgggttcggg gccctcgtgg   1140
ccggggccgg gtctgggcga gctcccggcg tgccaccaaa gcggctcccc gcgcggacga   1200
aggctcagaa tccagaaccc ttgatgtgtc cacagatgaa gaggataaaa tacatcactc   1260
ctcagaaagt aaggatgatc agggtttgtc ttctgacagt tctagctctc ttggagaaaa   1320
agaactttca tcaacagtta agatcccaga tgcagctttt attcaggcag cccgcagaaa   1380
acgttgaatt ggccagggcc caagatgact atatttcttt ggatgtacaa catacctcct   1440
ccatctctgt aagcagaaat gaagaaacaa gtgaagaaag tcaggaagat gaaaagcaag   1500
atacttggga acaacagcaa atgaggaaag cagttaaaat catagaggaa agagacatag   1560
atctttcctg tggcagtgga tcttcaaaag tgaagaaatt tgatacttcc atttcatttc   1620
cgccagtaaa tttagaaatt ataaagaagc aattaaatac tagattaaca ttactacagg   1680
aaactcaccg ctcacacctg agggagtatg aaaaatacgt acaagatgtc aaaagctcaa   1740
agagtaccat ccagaaccta gagagttcat caaatcaagc tctaaattgt aaattctata   1800
aaagcatgaa aatttatgtg gaaaatttaa ttgactgcct taatgaaaag attatcaaca   1860
tccaagaaat agaatcatcc atgcatgcac tcctttaaa acaagctatg accttatga   1920
aacgcaggca agatgaatta aaacatgaat caacgtattt acaacagtta tcacgcaaag   1980
atgagacatc cacaagtgga aacttctcag tagatgaaaa aactcagtgg attttagaag   2040
agattgaatc tcgaaggaca aaaagaagac aagcaagggt gctttctggg aattgtaacc   2100
atcaggaagg aacatctagt gatgatgaac tgccttcagc agagatgatt gacttccaaa   2160
aaagccaagg tgacatttta cagaaacaga agaaagtttt tgaagaagtg caagatgatt   2220
tttgtaacat ccagaatatt ttgttgaaat ttcagcaatg gcgagaaaag tttcctgact   2280
cctattatga agctttcatt agtttatgca taccaaagct tttaaatccc ctaatacgag   2340
ttcagttgat tgattggaat cctcttaagt tggaatccac aggtttaaaa gagatgccat   2400
ggttcaaatc tgtagaagaa tttatggata gcagtgtaga agattcaaag aaggaaagta   2460
gttcagataa aaaagtcttg tctgcaatca tcaacaaaac aattattccc cgacttacag   2520
actttgtaga attcctttgg gatcctttgt caacctcaca gacaacaagt ttaataacac   2580
attgcagagt gattcttgaa gaacattcca cttgtgaaaa tgaagttagt aaaagcagac   2640
aggatttact taaatccatt gtttcaagaa tgaaaaaggc agtagaagat gatgtttta   2700
ttcctctgta tccaaagagt gctgtagaaa acaaaacatc acctcattca aagttccaag   2760
aaagacagtt ctggtcaggc ctaaagctct tccgcaatat tcttctttgg aatggactcc   2820
ttacagatga caccttgcaa gaactaggac tagggaagct gctaaatcgt taccttatta   2880
tagcacttct caatgccaca cctgggccag atgtggttaa aaagtgcaac caggtagcag   2940
catgtctacc agaaaaatgg tttgaaaatt ctgccatgag gacatctatt ccacagctag   3000
aaaacttcat tcagtttttta ttgcagtctg cacataaatt atctagaagt gaattcaggg   3060
atgaagtcga agaaataatt cttattttgg tgaaaataaa agctttgaat caagcagaat   3120
ccttcatagg agagcatcac ctagaccatc ttaaatcact aattaaagaa gattgaataa   3180
actttattgg aaaatgctaa aattttaata tagttacact cagttccttt gtttgagaag   3240
aagctggtgc ctctctcttc tttattccct gtaatagaag gtaggatttg aaaaaaagca   3300
ggactccacc tctgtattcc cccgtgcttt accttctggc atcatgaaaa gctgccatga   3360
ttctgtggtg ttctaaggaa ttaaatgcac tggagcttta agagctcaac gtgtttccct   3420
ttg                                                                 3423
```

```
    <210> 702
    <211> 1106
    <212> DNA
    <213> Homo Sapiens

    <400> 702
ggcacgagca gagacgctgc aaattgcttg tggacggtgt aggccgctgc aggccaccat    60
gaaaccggct tccggatgac tacgacccct acgcggttga agagcctagc gacgaggagc   120
cggctttgag cagctctgag gatgaagtgg atgtgctttt acatggaact cctgaccaaa   180
aacgaaaact catcagagaa tgtcttaccg gagaaagtga atcatctagt gaagatgaat   240
ttgaaaagga gatggaagct gaattaaatt ctaccatgaa aacaatggag gacaagttat   300
cctctctggg aactggatct tcctcaggaa atggaaaagt tgcaacagct ccgacaaggt   360
actacgatga tatatatttt gattctgatt ccgaggatga agacagagca gtacaggtga   420
ccaagaaaaa aaagaagaaa caacacaaga ttccaacaaa tgacgaatta ctgtatgatc   480
```

```
ctgaaaaaga taacagagat caggcctggg ttgatgcaca gagaaggggt taccatggtt      540
tgggaccaca gagatcacgt caacaacagc ctgttccaaa tagtgatgct gtcttgaatt      600
gtcctgcctg catgaccaca ctttgccttg attgccaaag gcatgaatca tacaaaactc      660
natatagagc aatgtttgtt atgaattgtt ctattaacaa agaggaagtt ctaagatatn      720
aagcctcnga naacaggaag aaaaggcggg tccatnaaaa aaataaggtc taaccgggaa      780
gatctgncga naaggcagaa acagatgtgg aaaaaatcta tcncccntcc tgtnccctga      840
atgttccctg aaattggagt ctacaacaag gatnaattct tcnntttttc cntgttttag      900
caagccntcc taaacngccc nctggctttt atttccccat actgtttttta agggcaaatt      960
tggacagttc cttncccctt gcccgntcnt ntccctcntt gacttgaagg aaccatnttt     1020
ccnnttttaa gggaaaaaat tgttcacctc cttcccctct taattcctcc ccccncctt      1080
ttttttcctt gaattncccc cttntg                                         1106
```

        <210> 703
        <211> 1095
        <212> DNA
        <213> Homo Sapiens

        <400> 703

```
tgccgctcct cttcctcttc ttcttcttct tcttcctctt cttcctagct tccttcacca       60
aatcgcactg gctcctggac tcttttccta tcttcaccac gaactgctgc ttgctcgctt      120
gctcctcagt cctagcttca tcaaacactg gttcctggaa tcctgtctgc tgctgtcttc      180
ctanattcac tgaatccact tctgtgtagc acctgggtca gctgtcaatt aatgctagtc      240
ctcaggattt aaaaaataat cttaactcaa agtccaatgc aaaaacatta agttggtaat      300
tactcttgat cttgaattac ttccgttacg aaagtccttc acatttttca aactaagcta      360
ctatatttaa ggccttccaa attcttctaa ctcttccaaa agccttctgc cttagttttt      420
tttaaattac accagtcctt ttagtagctt tttgatgtga tttttaacca acttccccctt      480
ctagcttcaa gtattcttct aaattggttc tggtctacgt aaacaccctc atcttctcaa      540
gctttacctt ctaacttctg caccaccaga aattaaattg atgggctttt aaaataaatt      600
ggttacaata atttcctcat ttttttcagtg ctattttatc caatttttgg ctttatattt     660
ttctatcttc tatacttctc caatactgtc ttagcttgtt tttcattttc tatctgaaac      720
tcttgaaaat aatttcattt tctatcttgt ttctatcttc caaatttttct tctaaatttg     780
tacattttgc ccttaacttt ttggtttcct aacntggtct ttttcctccg cctcctaatt      840
ttcanggttt aaatttatct tttttcctcc naaaaatttg nttttaanct nccaaattnc      900
ccnaacctnc nctaatccnt ttccttcgcc ttcccgtnat ttcttgtntt ccaatttttcc     960
acttcaaatt ctatcttccc aaaatttttt ctnccaacnc cccaaataaa acttcccnnt     1020
tncgtcgggn ttaataaaag ntttaanagg gttaaagaa annaatcccc cngttttgga      1080
attnangggt ttaaa                                                     1095
```

        <210> 704
        <211> 1968
        <212> DNA
        <213> Homo Sapiens

        <400> 704

```
cggcagccct cctacctgcg cacgtggtgc cgctgctgct gcctcccgct cgccctgaac       60
ccagtgcctg cagccatggc tcccggccag ctcgccttat ttagtgtctc tgacaaaacc      120
ggccttgtgg aatttgcaag aaacctgacc gctcttggtt tgaatctggt cgcttccgga      180
gggactgcaa aagctctcag ggatgctggt ctggcagtca gagatgtctc tgagttgacg      240
ggatttcctg aaatgtttggg gggacgtgtg aaaactttgc atcctgcagt ccatgctgga     300
atcctagctc gtaatattcc agaagataat gctgacatgg ccagacttga tttcaatctt      360
ataagagttg ttgcctgcaa tctctatccc tttgtaaaga cagtggcttc tccaggtgta      420
actgttgagg aggctgtgga gcaaattgac attggtggag taaccttact gagagctgca      480
gccaaaaacc acgtctcgagt gacagtggtg tgtgaaccag aggactatgt ggtggtgtcc  ·  540
acggagatgc agagctccga gagtaaggac acctccttgg agactagacg ccagttagcc      600
ttgaaggcat tcactcatac ggcacaatat gatgaagcaa tttcagatta tttcaggaaa      660
```

```
cagtacagca aaggcgtatc tcagatgccc ttgagatatg gaatgaaccc acatcagacc    720
cctgcccagc tgtacacact gcagcccaag cttcccatca cagttctaaa tggagccct     780
ggatttataa acttgtgcga tgctttgaac gcctggcagc tggtgaagga actcaaggag    840
gctttaggta ttccagccgc tgcctctttc aaacatgtca gcccagcagg tgctgctgtt    900
ggaattccac tcagtgaaga tgaggccaaa gtctgcatgg tttatgatct ctataaaacc    960
ctcacaccca tctcagcggc atatgcaaga gcaagagggg ctgataggat gtcttcattt   1020
ggtgattttg ttgcattgtc cgatgttgt gatgtaccaa ctgcaaaaat tatttccaga    1080
gaagtatctg atggtataat tgccccagga tatgaagaag aagccttgac aatactttcc   1140
aaaaagaaaa atggaaacta ttgtgtcctt cagatggacc aatcttacaa accagatgaa    1200
aatgaagttc gaactctctt tggtcttcat ttaagccaga agagaaataa tggtgtcgtc   1260
gacaagtcat tatttagcaa tgttgttacc aaaaataaag atttgccaga gtctgccctc   1320
cgagacctca tcgtagccac cattgctgtc aagtacactc agtctaactc tgtgtgctac   1380
gccaagaacg ggcaggttat cggcattgga gcaggacagc agtctcgtat acactgcact   1440
cgccttgcag gagataaggc aaactattgg tggcttagac accatccaca agtgctttcg   1500
atgaagttta aaacaggagt gaagagagca gaaatctcca atgccatcga tcaatatgtg   1560
actggaacca ttggcgagga tgaagatttg ataaagtgga aggcactgtt tgaggaagtc   1620
cctgagttac tcactgaggc agagaagaag gaatgggttg agaaactgac tgaagtttct   1680
atcagctctg atgccttctt ccctttccga gataacgtag acagagctaa aaggagtggt   1740
gtggcgtaca ttgcggctcc ctccggttct gctgctgaca aagttgtgat tgaggcctgc   1800
gacgaactgg gaatcatcct cgctcatacg aaccttcggc tcttccacca ctgattttac   1860
cacacactgt tttttggctt gcttatgtgt aggtgaacag tcacgcctga aactttgagg   1920
ataacttttt aaaaaaataa aacagtatct cttaatcact ggaaaaaa                 1968
```

```
          <210> 705
          <211> 800
          <212> DNA
          <213> Homo Sapiens

          <400> 705
cctgcaggtc gacactaagt gggatccaaa gaattcggca cgagaaaaga agaagactaa     60
gaataaaaag aataaagact caaagaagaa ccaagtccca tatgtggtag aaaaggaaga    120
gcagttgagg aaagaacaag caaatccaca ctcagtcagt agacttataa aagatgatgc    180
aagtgatgtt caagaggatt ctgcaatgga agacaagttc tatagcctgg atgaattgca    240
tattctggac atgatagagc agggctcagc tggcaaagta actacagact atggagaaac    300
tgaaaaggaa aggcttgctc gtcaaaggca gctttataaa ttgcactatc agtgtgaaga    360
tttcaaaaga cagttgagaa cagtgacttt tcggtggcaa gaaaaccaaa tgcagattaa    420
aaagaaagac aaaattatcg catctctaa tcaacaagtt gcttttggaa tcaataaggt     480
ttccaaatta cagcgtcaaa tccatgctaa agataatgaa atcaagaacc ttaaagagca    540
actttctatg aaaagatctc agtgggaaat ggaaaaacat aatctgggaa agcacaatga    600
aaacatacgt aagcaaactg aacgcagaaa ctagcagagc tttaacagcc gaaggtgtan    660
ttcttacagt gtcgtanggg antttgggtt tgcctcatcc tagagcaaga ctgaaaagga    720
atgtcccaat cagcntgcca agggtgaccc acatggganc caagcaacct agaaancact    780
tcaatttaaa gggctgcggg                                                800
```

```
          <210> 706
          <211> 487
          <212> DNA
          <213> Homo Sapiens

          <400> 706
caaaggaagc tcagttttc ttttattatg agctgcttgt ntgagtggtg taaaattatg     60
tgctcttcaa tatagtgcta aagaagccag ctaattttat caaagcagca gccaaagaag    120
tcaggacaaa tcttcaggac ttgtgaaatg aactgaaaga gcttgaagca gatggaattt    180
taatagttac actatatatg ctcttagtag gttttttttct tgtagtggaa acataactgt    240
tagcatattt cttaggatgt tttttcttgt ctttttaaat tcttatttca ctcatccttt    300
```

```
actctcccct caagtattct acactttaat ttcctgaaat aaatttaagg aaaagggaaa     360
tagtaaagaa gtaggaatgg gtgcagcaca ccagcatggc acatgaatac acatgtaact     420
aacctgcaca ttgtgcacat gtaccctaaa acttaaagta taataataat aaaaaaaaaa     480
aaaaaaa                                                               487


        <210> 707
        <211> 3599
        <212> DNA
        <213> Homo Sapiens


        <400> 707
        aaggaggagc gggccgtgga ggcttcgccg cctaggtact gctataacca gaatttggta     60
        taaaaaggat ttacttgttg gggccctctt gataaaaaga gatgtggggg gattctcgac    120
        ctgctaacag aactggacct tttcgtggga gccaagaaga aaggtttgct cccgggtgga    180
        acagggatta tcctcctcct ccccttaaga gtcatgctca agagagacac tctggcaact    240
        ttcctggcag agattcactt ccctttgatt tccaggggca ttcggggcct cctttttgcaa    300
        atgtagagga gcattctttc agctatggag ctagagacgg accgcatggt gactatcgag    360
        gaggggaggg acctggacat gatttcaggg ggggagattt ttcgtcttct gatttccaga    420
        gcagagattc atcacagttg gacttcaggg gtaggggacat acattctggg gattttcggg    480
        atagagaagg accacctatg gactataggg gtggagatgg tacttctatg gattatagag    540
        gtagggaggc acctcatatg aactacagag acagggatgc tcacgctgtt gacttcagag    600
        gtagggatgc tcctccatct gacttcaggg gccggggcac ttatgattta gattttagag    660
        gccgggatgg atcccatgca gatttttaggg gaagggattt atcagatttg gattttaggg    720
        ccagagaaca gtcccgttct gatttttagga atagagatgt atctgatttg gactttagag    780
        acaaagacgg aacacaagta gactttagag gccgaggttc aggtactact gatctagact    840
        ttagggacag ggatacgcca cattcagatt tcagaggtag acaccgatct aggactgatc    900
        aggattttag gggcagagag atgggatctt gtatggaatt aaagatagg gagatgcccc    960
        ctgtggatcc aaatattttg gattacattc agccctctac acaagataga gaacattctg   1020
        gtatgaatgt gaacaggaga gaagaatcca cacacgacca tacgatagaa aggcctgctt   1080
        ttggcattca gaagggagaa tttgagcatt cagaaacaag agaaggagaa acacaaggtg   1140
        tagcctttga acatgagtct ccagcagact ttcagaacag ccaaagtcca gttcaagacc   1200
        aagataagtc acagctttct ggacgtgaag agcagagttc agatgctggt ctgtttaaag   1260
        aagaaggcgg tctggacttt cttgggcggc aagacaccga ttacagaagc atggagtacc   1320
        gtgatgtgga tcataggctg ccaggaagcc agatgtttgg ctatggccag agcaagtctt   1380
        ttccagaggg caaaaactgcc cgagatgccc aacgggacct tcaggatcaa gattatagga   1440
        ccggcccaag tgaggagaaa cccagcaggc ttattcgatt aagtgggta cctgaagatg   1500
        ccacaaaaga agagattctt aatgctttc ggactcctga tggcatgcct gtaaagaact   1560
        tgcagttgaa ggagtataac acaggttacg actatggcta tgtctgcgtg gagtttttcac   1620
        tcttggaaga tgccatcgga tgcatggagg ccaaccaggg aactctaatg atccaggaca   1680
        aagaagttac cctggagtat gtatcaagcc tggatttttg gtactgcaaa cgatgtaagg   1740
        caaacattgg tgggcaccga tcttcctgtt cattctgcaa gaacccaaga gaagtgacag   1800
        aggccaagca agaattaata acctaccctc agcctcagaa aacatccata ccagcaccat   1860
        tggaaaaaca gcccaaccag ccctaagac cagctgataa ggaacctgaa cccaggaaga   1920
        gggaagaagg ccaagagtca cgcttaggac atcaaaagag agaagcagaa aggtatctgc   1980
        ctccttctcg aagggaaggg ccaactttcc gaagagaccg agagagggag tcatggtctg   2040
        gagagacacg ccaggatgga gagagcaaaa ctatcatgct aaagcgtatc tatcgttcca   2100
        caccacctga ggtgatagtg gaagtgctgg agccctatgt ccgccttact actgccaacg   2160
        tccgtatcat caagaacaga acaggcccta tggggcatac ctatggcttt attgacctcg   2220
        actcccatgt ggaagctctt cgtgtggtga agatcttaca gaaccttgat ccgccattta   2280
        gcattgatgg gaagatggta gctgtaaacc tggccactgg aaaacgaaga aatgattctg   2340
        gggaccattc tgaccacatg cattactatc agggtaaaaa atatttccga gataggaggg   2400
        gaggtggcag aaattcagac tggtcttcag atacaaatcg acaaggacaa cagtcatcat   2460
        ctgactgcta catatatgat tctgctagtg gctactatta tgacccctttg gcaggaactt   2520
        attatgaccc caatacccag caagaagtct atgtgcccca ggatcctgga ttacctgagg   2580
        aagaagagat caaggaaaaa aaacccacca gtcaaggaaa gtcaagtagc aagaaggaaa   2640
```

```
tgtctaaaag agatggcaag gagaaaaaag acagaggagt gacgaggttt caggaaaatg    2700
ccagtgaagg gaaggcccct gcagaagacg tctttaagaa gcccctgcct cctactgtga    2760
agaaggaaga gagtcccct ccacctaaag tggtaaaccc actgatcggc ctcttgggtg     2820
aaatatggagg agacagtgac tatgaggagg aagaagagga ggaacagacc cctcccccac   2880
agccccgcac agcacagccc cagaagcgag aggagcaaac caagaaggag aatgaagaag    2940
acaaactcac tgactggaat aaactggctt gtctgctttg cagaaggcag tttcccaata    3000
aagaagttct gatcaaacac cagcagctgt cagacctgca caagcaaaac ctggaaatcc    3060
accggaagat aaaacagtct gagcaggagc tagcctatct ggaaaggaga gaacgagagg    3120
gaaagtttaa aggaagagga aatgatcgca gggaaaagct ccagtctttt gactctccag    3180
aaaggaaacg gattaagtac tccagggaaa ctgacagtga tcgtaaactt gttgataaag    3240
aagatatcga cactagcagc aaaggaggct gtgtccaaca ggctactggc tggaggaaag    3300
ggacaggcct gggatatggc catcctggat tggcttcatc agaggaggct gaaggccgga    3360
tgaggggccc cagtgttgga gcctcaggaa gaaccagcaa aagacagtcc aacgagactt    3420
atcgagatgc tgttcgaaga gtcatgtttg ctcgatataa agaactcgat taagaaagga    3480
gacaagttcc atgggataca acctccctct tgtttttgtt gtctctcctt ttcttttgtt    3540
actgttcttg ctgctagaac ttttttaaat aaactttttt tcaatgtgat taaaaaaaa     3599
```

```
        <210> 708
        <211> 1123
        <212> PRT
        <213> Homo Sapiens


        <400> 708
Met Trp Gly Asp Ser Arg Pro Ala Asn Arg Thr Gly Pro Phe Arg Gly
 1               5                  10                  15
Ser Gln Glu Glu Arg Phe Ala Pro Gly Trp Asn Arg Asp Tyr Pro Pro
                20                  25                  30
Pro Pro Leu Lys Ser His Ala Gln Glu Arg His Ser Gly Asn Phe Pro
            35                  40                  45
Gly Arg Asp Ser Leu Pro Phe Asp Phe Gln Gly His Ser Gly Pro Pro
        50                  55                  60
Phe Ala Asn Val Glu Glu His Ser Phe Ser Tyr Gly Ala Arg Asp Gly
65                  70                  75                  80
Pro His Gly Asp Tyr Arg Gly Gly Glu Gly Pro Gly His Asp Phe Arg
                    85                  90                  95
Gly Gly Asp Phe Ser Ser Ser Asp Phe Gln Ser Arg Asp Ser Ser Gln
                100                 105                 110
Leu Asp Phe Arg Gly Arg Asp Ile His Ser Gly Asp Phe Arg Asp Arg
            115                 120                 125
Glu Gly Pro Pro Met Asp Tyr Arg Gly Gly Asp Gly Thr Ser Met Asp
        130                 135                 140
Tyr Arg Gly Arg Glu Ala Pro His Met Asn Tyr Arg Asp Arg Asp Ala
145                 150                 155                 160
His Ala Val Asp Phe Arg Gly Arg Asp Ala Pro Pro Ser Asp Phe Arg
                165                 170                 175
Gly Arg Gly Thr Tyr Asp Leu Asp Phe Arg Gly Arg Asp Gly Ser His
                180                 185                 190
Ala Asp Phe Arg Gly Arg Asp Leu Ser Asp Leu Asp Phe Arg Ala Arg
            195                 200                 205
Glu Gln Ser Arg Ser Asp Phe Arg Asn Arg Asp Val Ser Asp Leu Asp
        210                 215                 220
Phe Arg Asp Lys Asp Gly Thr Gln Val Asp Phe Arg Gly Arg Gly Ser
225                 230                 235                 240
Gly Thr Thr Asp Leu Asp Phe Arg Asp Arg Asp Thr Pro His Ser Asp
                245                 250                 255
```

-373-

```
Phe Arg Gly Arg His Arg Ser Arg Thr Asp Gln Asp Phe Arg Gly Arg
            260                 265                 270
Glu Met Gly Ser Cys Met Glu Phe Lys Asp Arg Glu Met Pro Pro Val
            275                 280                 285
Asp Pro Asn Ile Leu Asp Tyr Ile Gln Pro Ser Thr Gln Asp Arg Glu
        290                 295                 300
His Ser Gly Met Asn Val Asn Arg Arg Glu Glu Ser Thr His Asp His
305                 310                 315                 320
Thr Ile Glu Arg Pro Ala Phe Gly Ile Gln Lys Gly Glu Phe Glu His
                325                 330                 335
Ser Glu Thr Arg Glu Gly Glu Thr Gln Gly Val Ala Phe Glu His Glu
            340                 345                 350
Ser Pro Ala Asp Phe Gln Asn Ser Gln Ser Pro Val Gln Asp Gln Asp
            355                 360                 365
Lys Ser Gln Leu Ser Gly Arg Glu Glu Gln Ser Ser Asp Ala Gly Leu
        370                 375                 380
Phe Lys Glu Glu Gly Gly Leu Asp Phe Leu Gly Arg Gln Asp Thr Asp
385                 390                 395                 400
Tyr Arg Ser Met Glu Tyr Arg Asp Val Asp His Arg Leu Pro Gly Ser
                405                 410                 415
Gln Met Phe Gly Tyr Gly Gln Ser Lys Ser Phe Pro Glu Gly Lys Thr
            420                 425                 430
Ala Arg Asp Ala Gln Arg Asp Leu Gln Asp Gln Asp Tyr Arg Thr Gly
            435                 440                 445
Pro Ser Glu Glu Lys Pro Ser Arg Leu Ile Arg Leu Ser Gly Val Pro
        450                 455                 460
Glu Asp Ala Thr Lys Glu Glu Ile Leu Asn Ala Phe Arg Thr Pro Asp
465                 470                 475                 480
Gly Met Pro Val Lys Asn Leu Gln Leu Lys Glu Tyr Asn Thr Gly Tyr
                485                 490                 495
Asp Tyr Gly Tyr Val Cys Val Glu Phe Ser Leu Leu Glu Asp Ala Ile
            500                 505                 510
Gly Cys Met Glu Ala Asn Gln Gly Thr Leu Met Ile Gln Asp Lys Glu
            515                 520                 525
Val Thr Leu Glu Tyr Val Ser Ser Leu Asp Phe Trp Tyr Cys Lys Arg
        530                 535                 540
Cys Lys Ala Asn Ile Gly Gly His Arg Ser Ser Cys Ser Phe Cys Lys
545                 550                 555                 560
Asn Pro Arg Glu Val Thr Glu Ala Lys Gln Glu Leu Ile Thr Tyr Pro
                565                 570                 575
Gln Pro Gln Lys Thr Ser Ile Pro Ala Pro Leu Glu Lys Gln Pro Asn
            580                 585                 590
Gln Pro Leu Arg Pro Ala Asp Lys Glu Pro Glu Pro Arg Lys Arg Glu
            595                 600                 605
Glu Gly Gln Glu Ser Arg Leu Gly His Gln Lys Arg Glu Ala Glu Arg
        610                 615                 620
Tyr Leu Pro Pro Ser Arg Arg Glu Gly Pro Thr Phe Arg Arg Asp Arg
625                 630                 635                 640
Glu Arg Glu Ser Trp Ser Gly Glu Thr Arg Gln Asp Gly Glu Ser Lys
                645                 650                 655
Thr Ile Met Leu Lys Arg Ile Tyr Arg Ser Thr Pro Pro Glu Val Ile
            660                 665                 670
Val Glu Val Leu Glu Pro Tyr Val Arg Leu Thr Thr Ala Asn Val Arg
        675                 680                 685
Ile Ile Lys Asn Arg Thr Gly Pro Met Gly His Thr Tyr Gly Phe Ile
```

-374-

```
         690                      695                    700
Asp Leu Asp Ser His Val Glu Ala Leu Arg Val Val Lys Ile Leu Gln
705                      710                    715                    720
Asn Leu Asp Pro Pro Phe Ser Ile Asp Gly Lys Met Val Ala Val Asn
                    725                    730                    735
Leu Ala Thr Gly Lys Arg Arg Asn Asp Ser Gly Asp His Ser Asp His
                    740                    745                    750
Met His Tyr Tyr Gln Gly Lys Lys Tyr Phe Arg Asp Arg Arg Gly Gly
                    755                    760                    765
Gly Arg Asn Ser Asp Trp Ser Ser Asp Thr Asn Arg Gln Gly Gln Gln
                    770                    775                    780
Ser Ser Ser Asp Cys Tyr Ile Tyr Asp Ser Ala Ser Gly Tyr Tyr Tyr
785                    790                    795                    800
Asp Pro Leu Ala Gly Thr Tyr Tyr Asp Pro Asn Thr Gln Gln Glu Val
                    805                    810                    815
Tyr Val Pro Gln Asp Pro Gly Leu Pro Glu Glu Glu Ile Lys Glu
                    820                    825                    830
Lys Lys Pro Thr Ser Gln Gly Lys Ser Ser Ser Lys Lys Glu Met Ser
                    835                    840                    845
Lys Arg Asp Gly Lys Glu Lys Lys Asp Arg Gly Val Thr Arg Phe Gln
                    850                    855                    860
Glu Asn Ala Ser Glu Gly Lys Ala Pro Ala Glu Asp Val Phe Lys Lys
865                    870                    875                    880
Pro Leu Pro Pro Thr Val Lys Lys Glu Glu Ser Pro Pro Pro Lys
                    885                    890                    895
Val Val Asn Pro Leu Ile Gly Leu Leu Gly Glu Tyr Gly Gly Asp Ser
                    900                    905                    910
Asp Tyr Glu Glu Glu Glu Glu Glu Gln Thr Pro Pro Pro Gln Pro
                    915                    920                    925
Arg Thr Ala Gln Pro Gln Lys Arg Glu Glu Gln Thr Lys Lys Glu Asn
                    930                    935                    940
Glu Glu Asp Lys Leu Thr Asp Trp Asn Lys Leu Ala Cys Leu Leu Cys
945                    950                    955                    960
Arg Arg Gln Phe Pro Asn Lys Glu Val Leu Ile Lys His Gln Gln Leu
                    965                    970                    975
Ser Asp Leu His Lys Gln Asn Leu Glu Ile His Arg Lys Ile Lys Gln
                    980                    985                    990
Ser Glu Gln Glu Leu Ala Tyr Leu Glu Arg Arg Glu Arg Glu Gly Lys
                    995                    1000                   1005
Phe Lys Gly Arg Gly Asn Asp Arg Arg Glu Lys Leu Gln Ser Phe Asp
                    1010                   1015                   1020
Ser Pro Glu Arg Lys Arg Ile Lys Tyr Ser Arg Glu Thr Asp Ser Asp
1025                   1030                   1035                   104
Arg Lys Leu Val Asp Lys Glu Asp Ile Asp Thr Ser Ser Lys Gly Gly
                    1045                   1050                   1055
Cys Val Gln Gln Ala Thr Gly Trp Arg Lys Gly Thr Gly Leu Gly Tyr
                    1060                   1065                   1070
Gly His Pro Gly Leu Ala Ser Ser Glu Glu Ala Glu Gly Arg Met Arg
                    1075                   1080                   1085
Gly Pro Ser Val Gly Ala Ser Gly Arg Thr Ser Lys Arg Gln Ser Asn
                    1090                   1095                   1100
Glu Thr Tyr Arg Asp Ala Val Arg Arg Val Met Phe Ala Arg Tyr Lys
1105                   1110                   1115                   112
Glu Leu Asp
```

```
<210> 709
<211> 3807
<212> DNA
<213> Homo Sapiens

<400> 709
aaggaggagc gggccgtgga ggcttcgccg cctaggtact gctataacca gaatttggta        60
taaaaaggat ttacttgttg gggccctctt gataaaaaga gatgtggggg gattctcgac       120
ctgctaacag aactggacct tttcgagatg gcgtttcgcc gtgttggccg ggctggtctc       180
ggactcctga cctcaagtga tccacctacc tcggcctccc aaagtgctgg gactataggt       240
gtgagccacc gcacctgcca tttggattgg caatctgcaa gattttatta cttaaatgca       300
acagatgttc tcattcattg ttctgaagct tggagttcca atgaaaaatt tagtgggagc       360
caagaagaaa ggtttgctcc cgggtggaac agggattatc ctcctcctcc ccttaagagt       420
catgctcaag agagacactc tggcaacttt cctggcagag attcacttcc ctttgatttc       480
caggggcatt cggggcctcc ttttgcaaat gtagaggagc attctttcag ctatggagct       540
agagacggac cgcatggtga ctatcgagga ggggagggac ctggacatga tttcaggggg       600
ggagattttt cgtcttctga tttccagagc agagattcat cacagttgga cttcaggggt       660
agggacatac attctgggga ttttcgggat agagaaggac cacctatgga ctataggggt       720
ggagatggta cttctatgga ttatagaggt agggaggcac ctcatatgaa ctacagagac       780
agggatgctc acgctgttga cttcagaggt agggatgctc ctccatctga cttcaggggc       840
cggggcactt atgatttaga ttttagaggc cgggatggat cccatgcaga tttttagggga       900
agggatttat cagatttgga ttttagggcc agagaacagt cccgttctga ttttaggaat       960
agagatgtat ctgatttgga ctttagagac aaagacggaa cacaagtaga ctttagaggc      1020
cgaggttcag gtactactga tctagacttt agggacaggg atacgccaca ttcagatttc      1080
agaggtagac accgatctag gactgatcag gattttaggg gcagagagat gggatcttgt      1140
atggaattta aagatgggga gatgcccccct gtggatccaa atattttgga ttacattcag      1200
ccctctacac aagatagaga acattctggt atgaatgtga acaggagaga agaatccaca      1260
cacgaccata cgatagaaag gcctgctttt ggcattcaga agggagaatt tgagcattca      1320
gaaacaagag aaggagaaac acaaggtgta gcctttgaac atgagtctcc agcagacttt      1380
cagaacagcc aaagtccagt tcaagaccaa gataagtcac agctttctgg acgtgaagag      1440
cagagttcag atgctggtct gtttaaagaa gaaggcggtc tggactttct tgggcggcaa      1500
gacaccgatt acagaagcat ggagtaccgt gatgtggatc ataggctgcc aggaagccag      1560
atgtttggct atggccagag caagtctttt ccagagggca aaactgcccg agatgcccaa      1620
cgggaccttc aggatcaaga ttataggacc ggcccaagtg aggagaaacc cagcaggctt      1680
attcgattaa gtggggtacc tgaagatgcc acaaaagaag agattcttaa tgctttttcgg      1740
actcctgatg gcatgcctgt aaagaacttg cagttgaagg agtataacac aggttacgac      1800
tatggctatg tctgcgtgga gtttttcactc ttggaagatg ccatcggatg catggaggcc      1860
aaccagggaa ctctaatgat ccaggacaaa gaagttaccc tggagtatgt atcaagcctg      1920
gattttttggt actgcaaacg atgtaaggca aacattggtg ggcaccgatc ttcctgttca      1980
ttctgcaaga acccaagaga agtgacagag gccaagcaag aattaataac ctaccctcag      2040
cctcagaaaa catccatacc agcaccattg gaaaacagc ccaaccagcc cctaagacca      2100
gctgataagg aacctgaacc caggaagagg gaagaaggcc aagagtcacg cttaggacat      2160
caaaagagag aagcagaaag gtatctgcct ccttctcgaa gggaagggcc aacttttcga      2220
agagaccgag agagggagtc atggtctgga gagacacgcc aggatggaga gagcaaaact      2280
atcatgctaa agcgtatcta tcgttccaca ccacctgagg tgatagtgga agtgctggag      2340
ccctatgtcc gccttactac tgccaacgtc cgtatcatca agaacagaac aggccctatg      2400
gggcatacct atggctttat tgacctcgac tcccatgtgg aagctcttcg tgtggtgaag      2460
atcttacaga accttgatcc gccatttagc attgatggga agatggtagc tgtaaacctg      2520
gccactggaa aacgaagaaa tgattctggg gaccattctg accacatgca ttactatcag      2580
ggtaaaaaat atttccgaga taggagggga ggtggcagaa attcagactg gtcttcagat      2640
acaaatcgac aaggacaaca gtcatcatct gactgctaca tatatgattc tgctagtggc      2700
tactattatg acccccttggc aggaacttat tatgacccca atacccagca agaagtctat      2760
gtgccccagg atcctggatt acctgaggaa aagagatca aggaaaaaaa acccaccagt      2820
caaggaaagt caagtagcaa gaaggaaatg tctaaaagag atggcaagga gaaaaaagac      2880
agaggagtga cgaggtttca ggaaaatgcc agtgaaggga aggcccctgc agaagacgtc      2940
```

```
tttaagaagc ccctgcctcc tactgtgaag aaggaagaga gtcccccctcc acctaaagtg    3000
gtaaacccac tgatcggcct cttgggtgaa tatggaggag acagtgacta tgaggaggaa    3060
gaagaggagg aacagacccc tccccacag ccccgcacag cacagcccca gaagcgagag     3120
gagcaaacca agaaggagaa tgaagaagac aaactcactg actggaataa actggcttgt    3180
ctgctttgca gaaggcagtt tcccaataaa gaagttctga tcaaacacca gcagctgtca    3240
gacctgcaca agcaaaacct ggaaatccac cggaagataa aacagtctga gcaggagcta    3300
gcctatctgg aaaggagaga acgagaggga aagtttaaag gaagaggaaa tgatcgcagg    3360
gaaaagctcc agtcttttga ctctccagaa aggaaacgga ttaagtactc cagggaaact    3420
gacagtgatc gtaaacttgt tgataaagaa gatatcgaca ctagcagcaa aggaggctgt    3480
gtccaacagg ctactggctg gaggaaaggg acaggcctgg gatatggcca tcctggattg    3540
gcttcatcag aggaggctga aggccggatg aggggcccca gtgttggagc ctcaggaaga    3600
accagcaaaa gacagtccaa cgagacttat cgagatgctg ttcgaagagt catgtttgct    3660
cgatataaag aactcgatta agaaaggaga caagttccat gggatacaac ctccctcttg    3720
ttttgtttgt ctctcctttt cttttgttac tgttcttgct gctagaactt ttttaaataa    3780
acttttttc aatgtgatta aaaaaaa                                        3807
```

```
        <210> 710
        <211> 1177
        <212> PRT
        <213> Homo Sapiens

        <400> 710
Met Ala Phe Arg Arg Val Gly Arg Ala Gly Leu Gly Leu Leu Thr Ser
 1               5                  10                  15
Ser Asp Pro Pro Thr Ser Ala Ser Gln Ser Ala Gly Thr Ile Gly Val
                20                  25                  30
Ser His Arg Thr Cys His Leu Asp Trp Gln Ser Ala Arg Phe Tyr Tyr
            35                  40                  45
Leu Asn Ala Thr Asp Val Leu Ile His Cys Ser Glu Ala Trp Ser Ser
        50                  55                  60
Asn Glu Lys Phe Ser Gly Ser Gln Glu Glu Arg Phe Ala Pro Gly Trp
65                  70                  75                  80
Asn Arg Asp Tyr Pro Pro Pro Leu Lys Ser His Ala Gln Glu Arg
                85                  90                  95
His Ser Gly Asn Phe Pro Gly Arg Asp Ser Leu Pro Phe Asp Phe Gln
            100                 105                 110
Gly His Ser Gly Pro Pro Phe Ala Asn Val Glu Glu His Ser Phe Ser
            115                 120                 125
Tyr Gly Ala Arg Asp Gly Pro His Gly Asp Tyr Arg Gly Gly Glu Gly
        130                 135                 140
Pro Gly His Asp Phe Arg Gly Gly Asp Phe Ser Ser Ser Asp Phe Gln
145                 150                 155                 160
Ser Arg Asp Ser Ser Gln Leu Asp Phe Arg Gly Arg Asp Ile His Ser
                165                 170                 175
Gly Asp Phe Arg Asp Arg Glu Gly Pro Pro Met Asp Tyr Arg Gly Gly
            180                 185                 190
Asp Gly Thr Ser Met Asp Tyr Arg Gly Arg Glu Ala Pro His Met Asn
            195                 200                 205
Tyr Arg Asp Arg Asp Ala His Ala Val Asp Phe Arg Gly Arg Asp Ala
        210                 215                 220
Pro Pro Ser Asp Phe Arg Gly Arg Gly Thr Tyr Asp Leu Asp Phe Arg
225                 230                 235                 240
Gly Arg Asp Gly Ser His Ala Asp Phe Arg Gly Arg Asp Leu Ser Asp
                245                 250                 255
Leu Asp Phe Arg Ala Arg Glu Gln Ser Arg Ser Asp Phe Arg Asn Arg
```

```
                260                      265                      270
Asp Val Ser Asp Leu Asp Phe Arg Asp Lys Asp Gly Thr Gln Val Asp
            275                      280                      285
Phe Arg Gly Arg Gly Ser Gly Thr Thr Asp Leu Asp Phe Arg Asp Arg
        290                      295                      300
Asp Thr Pro His Ser Asp Phe Arg Gly Arg His Arg Ser Arg Thr Asp
305                      310                      315                      320
Gln Asp Phe Arg Gly Arg Glu Met Gly Ser Cys Met Glu Phe Lys Asp
                325                      330                      335
Arg Glu Met Pro Pro Val Asp Pro Asn Ile Leu Asp Tyr Ile Gln Pro
            340                      345                      350
Ser Thr Gln Asp Arg Glu His Ser Gly Met Asn Val Asn Arg Arg Glu
            355                      360                      365
Glu Ser Thr His Asp His Thr Ile Glu Arg Pro Ala Phe Gly Ile Gln
        370                      375                      380
Lys Gly Glu Phe Glu His Ser Glu Thr Arg Glu Gly Glu Thr Gln Gly
385                      390                      395                      400
Val Ala Phe Glu His Glu Ser Pro Ala Asp Phe Gln Asn Ser Gln Ser
                405                      410                      415
Pro Val Gln Asp Gln Asp Lys Ser Gln Leu Ser Gly Arg Glu Glu Gln
            420                      425                      430
Ser Ser Asp Ala Gly Leu Phe Lys Glu Glu Gly Gly Leu Asp Phe Leu
            435                      440                      445
Gly Arg Gln Asp Thr Asp Tyr Arg Ser Met Glu Tyr Arg Asp Val Asp
        450                      455                      460
His Arg Leu Pro Gly Ser Gln Met Phe Gly Tyr Gly Gln Ser Lys Ser
465                      470                      475                      480
Phe Pro Glu Gly Lys Thr Ala Arg Asp Ala Gln Arg Asp Leu Gln Asp
                485                      490                      495
Gln Asp Tyr Arg Thr Gly Pro Ser Glu Glu Lys Pro Ser Arg Leu Ile
            500                      505                      510
Arg Leu Ser Gly Val Pro Glu Asp Ala Thr Lys Glu Glu Ile Leu Asn
            515                      520                      525
Ala Phe Arg Thr Pro Asp Gly Met Pro Val Lys Asn Leu Gln Leu Lys
        530                      535                      540
Glu Tyr Asn Thr Gly Tyr Asp Tyr Gly Tyr Val Cys Val Glu Phe Ser
545                      550                      555                      560
Leu Leu Glu Asp Ala Ile Gly Cys Met Glu Ala Asn Gln Gly Thr Leu
                565                      570                      575
Met Ile Gln Asp Lys Glu Val Thr Leu Glu Tyr Val Ser Ser Leu Asp
            580                      585                      590
Phe Trp Tyr Cys Lys Arg Cys Lys Ala Asn Ile Gly Gly His Arg Ser
            595                      600                      605
Ser Cys Ser Phe Cys Lys Asn Pro Arg Glu Val Thr Glu Ala Lys Gln
        610                      615                      620
Glu Leu Ile Thr Tyr Pro Gln Pro Gln Lys Thr Ser Ile Pro Ala Pro
625                      630                      635                      640
Leu Glu Lys Gln Pro Asn Gln Pro Leu Arg Pro Ala Asp Lys Glu Pro
                645                      650                      655
Glu Pro Arg Lys Arg Glu Glu Gly Gln Glu Ser Arg Leu Gly His Gln
            660                      665                      670
Lys Arg Glu Ala Glu Arg Tyr Leu Pro Pro Ser Arg Arg Glu Gly Pro
        675                      680                      685
Thr Phe Arg Arg Asp Arg Glu Arg Glu Ser Trp Ser Gly Glu Thr Arg
        690                      695                      700
```

-378-

```
Gln Asp Gly Glu Ser Lys Thr Ile Met Leu Lys Arg Ile Tyr Arg Ser
705                 710                 715                 720
Thr Pro Pro Glu Val Ile Val Glu Val Leu Glu Pro Tyr Val Arg Leu
                725                 730                 735
Thr Thr Ala Asn Val Arg Ile Ile Lys Asn Arg Thr Gly Pro Met Gly
                740                 745                 750
His Thr Tyr Gly Phe Ile Asp Leu Asp Ser His Val Glu Ala Leu Arg
            755                 760                 765
Val Val Lys Ile Leu Gln Asn Leu Asp Pro Pro Phe Ser Ile Asp Gly
            770                 775                 780
Lys Met Val Ala Val Asn Leu Ala Thr Gly Lys Arg Arg Asn Asp Ser
785                 790                 795                 800
Gly Asp His Ser Asp His Met His Tyr Tyr Gln Gly Lys Lys Tyr Phe
                805                 810                 815
Arg Asp Arg Arg Gly Gly Gly Arg Asn Ser Asp Trp Ser Ser Asp Thr
            820                 825                 830
Asn Arg Gln Gly Gln Gln Ser Ser Ser Asp Cys Tyr Ile Tyr Asp Ser
            835                 840                 845
Ala Ser Gly Tyr Tyr Tyr Asp Pro Leu Ala Gly Thr Tyr Tyr Asp Pro
    850                 855                 860
Asn Thr Gln Gln Glu Val Tyr Val Pro Gln Asp Pro Gly Leu Pro Glu
865                 870                 875                 880
Glu Glu Glu Ile Lys Glu Lys Lys Pro Thr Ser Gln Gly Lys Ser Ser
                885                 890                 895
Ser Lys Lys Glu Met Ser Lys Arg Asp Gly Lys Glu Lys Lys Asp Arg
                900                 905                 910
Gly Val Thr Arg Phe Gln Glu Asn Ala Ser Glu Gly Lys Ala Pro Ala
            915                 920                 925
Glu Asp Val Phe Lys Lys Pro Leu Pro Pro Thr Val Lys Lys Glu Glu
    930                 935                 940
Ser Pro Pro Pro Lys Val Val Asn Pro Leu Ile Gly Leu Leu Gly
945                 950                 955                 960
Glu Tyr Gly Gly Asp Ser Asp Tyr Glu Glu Glu Glu Glu Glu Glu Gln
            965                 970                 975
Thr Pro Pro Pro Gln Pro Arg Thr Ala Gln Pro Gln Lys Arg Glu Glu
            980                 985                 990
Gln Thr Lys Lys Glu Asn Glu Glu Asp Lys Leu Thr Asp Trp Asn Lys
        995                 1000                1005
Leu Ala Cys Leu Leu Cys Arg Arg Gln Phe Pro Asn Lys Glu Val Leu
    1010                1015                1020
Ile Lys His Gln Gln Leu Ser Asp Leu His Lys Gln Asn Leu Glu Ile
1025                1030                1035                104
His Arg Lys Ile Lys Gln Ser Glu Gln Glu Leu Ala Tyr Leu Glu Arg
            1045                1050                1055
Arg Glu Arg Glu Gly Lys Phe Lys Gly Arg Gly Asn Asp Arg Arg Glu
            1060                1065                1070
Lys Leu Gln Ser Phe Asp Ser Pro Glu Arg Lys Arg Ile Lys Tyr Ser
        1075                1080                1085
Arg Glu Thr Asp Ser Asp Arg Lys Leu Val Asp Lys Glu Asp Ile Asp
    1090                1095                1100
Thr Ser Ser Lys Gly Gly Cys Val Gln Gln Ala Thr Gly Trp Arg Lys
1105                1110                1115                112
Gly Thr Gly Leu Gly Tyr Gly His Pro Gly Leu Ala Ser Ser Glu Glu
            1125                1130                1135
Ala Glu Gly Arg Met Arg Gly Pro Ser Val Gly Ala Ser Gly Arg Thr
```

```
            1140                   1145                    1150
Ser Lys Arg Gln Ser Asn Glu Thr Tyr Arg Asp Ala Val Arg Arg Val
        1155                   1160                    1165
Met Phe Ala Arg Tyr Lys Glu Leu Asp
    1170                   1175


    <210> 711
    <211> 4060
    <212> DNA
    <213> Homo Sapiens


    <400> 711
    ctgaaggcag cggcgcggcg cctttgtggt agcagtggcc ccgcgcggag gaagttccgg      60
    tgtccgcggc gctaggtcgg tggcggaggc tgaggagaag gaggagcggg ccgtggaggc     120
    ttcgccgcct aggtactgct ataaccagaa tttggtataa aaaggattta cttgttgggg     180
    ccctcttgat aaaaagagat gtggggggat tctcgacctg ctaacagaac tggacctttt     240
    cggactgggt gaaagctttt tctgcagcag tcatgttaaa aaccttgtgt tgactttcct     300
    cgtgttctga aactaacaga actggacctt ttcggactgg gtgaaagctt tttctgcagc     360
    agtcatgttg aaaaccttgt gttgactttc ttcgtgttct gaaatgggag cataaaagtt     420
    tactccgcca nttcgtctta aaatagcaaa actttgctgt tttctgcaga tctaggacct     480
    tgttacagaa ctctgccaaa aaaaaatgt ttacagaaga atgtgctgtg attagagaag     540
    aatatgctgg tgtgtagatt tcaaactctc tggacaatat gaataacact gtctttgttt     600
    ctacagtggg agccaagaag aaaggtttgc tcccgggtgg aacagggatt atcctcctcc     660
    tcccccttaag agtcatgctc aagagagaca ctctggcaac tttcctggca gagattcact     720
    tcccttgat ttccaggggc attcggggcc tccttttgca aatgtagagg agcattcttt     780
    cagctatgga gctagagacg gaccgcatgg tgactatcga ggaggggagg gacctggaca     840
    tgatttcagg ggggggagatt tttcgtcttc tgatttccag agcagagatt catcacagtt     900
    ggacttcagg ggtagggaca tacattctgg ggattttcgg gatagagaag gaccacctat     960
    ggactatagg ggtggagatg gtacttctat ggattataga ggtagggagg cacctcatat    1020
    gaactacaga gacagggatg ctcacgctgt tgacttcaga ggtagggatg ctcctccatc    1080
    tgacttcagg ggccgggca cttatgattt agatttaga ggccgggatg gatcccatgc    1140
    agatttagg ggaagggatt tatcagattt ggatttagg gccagagaac agtcccgttc    1200
    tgatttagg aatagagatg tatctgattt ggactttaga gacaaagacg gaacacaagt    1260
    agactttaga ggccgaggtt caggtactac tgatctagac tttagggaca gggatacgcc    1320
    acattcagat ttcagaggta gacaccgatc taggactgat caggatttta ggggcagaga    1380
    gatgggatct tgtatggaat ttaaagatag ggagatgccc cctgtggatc caaatatttt    1440
    ggattacatt cagccctcta cacaagatag agaacattct ggtatgaatg tgaacaggag    1500
    agaagaatcc acacacgacc atacgataga aaggcctgct tttggcattc agaagggaga    1560
    atttgagcat tcagaaacaa gagaaggaga aacacaaggt gtagcctttg aacatgagtc    1620
    tccagcagac tttcagaaca gccaaagtcc agttcaagac caagataagt cacagctttc    1680
    tggacgtgaa gagcagagtt cagatgctgg tctgtttaaa gaagaaggcg gtctggactt    1740
    tcttgggcgg caagacaccg attacagaag catggagtac cgtgatgtgg atcataggct    1800
    gccaggaagc cagatgtttg gctatggcca gagcaagtct tttccagagg gcaaaactgc    1860
    ccgagatgcc caacgggacc ttcaggatca agattatagg accggcccaa gtgaggagaa    1920
    acccagcagg cttattcgat taagtggggt acctgaagat gccacaaaag aagagattct    1980
    taatgctttt cggactcctg atggcatgcc tgtaaagaac ttgcagttga aggagtataa    2040
    cacaggttac gactatggct atgtctgcgt ggagttttca ctcttggaag atgccatcgg    2100
    atgcatggag gccaaccagg gaactctaat gatccaggac aaagaagtta ccctggagta    2160
    tgtatcaagc ctggattttt ggtactgcaa acgatgtaag gcaaacattg gtgggcaccg    2220
    atcttcctgt tcattctgca gaacccaag agaagtgaca gaggccaagc aagaattaat    2280
    aacctaccct cagcctcaga aacatccat accagcacca ttggaaaaac agcccaacca    2340
    gcccctaaga ccagctgata aggaacctga acccaggaag agggaagag gccaagagtc    2400
    acgcttagga catcaaaaga gagaagcaga aaggtatctg cctccttctc gaagggaagg    2460
    gccaactttc cgaagagacc gagagaggga gtcatggtct ggagagacac gccaggatgg    2520
    agagagcaaa actatcatgc taaagcgtat ctatcgttcc acaccacctg aggtgatagt    2580
```

                                  -380-

```
ggaagtgctg gagccctatg tccgccttac tactgccaac gtccgtatca tcaagaacag    2640
aacaggccct atggggcata cctatggctt tattgacctc gactcccatg tggaagctct    2700
tcgtgtggtg aagatcttac agaaccttga tccgccattt agcattgatg ggaagatggt    2760
agctgtaaac ctggccactg gaaaacgaag aaatgattct ggggaccatt ctgaccacat    2820
gcattactat cagggtaaaa aatatttccg agataggagg ggaggtggca gaaattcaga    2880
ctggtcttca gatacaaatc gacaaggaca acagtcatca tctgactgct acatatatga    2940
ttctgctagt ggctactatt atgacccctt ggcaggaact tattatgacc ccaataccca    3000
gcaagaagtc tatgtgcccc aggatcctgg attacctgag gaagaagaga tcaaggaaaa    3060
aaaacccacc agtcaaggaa agtcaagtag caagaaggaa atgtctaaaa gagatggcaa    3120
ggagaaaaaa gacagaggag tgacgaggtt tcaggaaaat gccagtgaag ggaaggcccc    3180
tgcagaagac gtctttaaga agcccctgcc tcctactgtg aagaaggaag agagtccccc    3240
tccacctaaa gtggtaaacc cactgatcgg cctcttgggt gaatatggag gagacagtga    3300
ctatgaggag gaagaagagg aggaacagac ccctccccca cagccccgca cagcacagcc    3360
ccagaagcga gaggagcaaa ccaagaagga gaatgaagaa gacaaactca ctgactggaa    3420
taaactggct tgtctgcttt gcagaaggca gtttcccaat aaagaagttc tgatcaaaca    3480
ccagcagctg tcagacctgc acaagcaaaa cctggaaatc caccggaaga taaaacagtc    3540
tgagcaggag ctagcctatc tggaaaggag agaacgagag ggaaagttta aaggaagagg    3600
aaatgatcgc agggaaaagc tccagtcttt tgactctcca gaaaggaaac ggattaagta    3660
ctccagggaa actgacagtg atcgtaaact tgttgataaa gaagatatcg acactagcag    3720
caaaggaggc tgtgtccaac aggctactgg ctggaggaaa gggacaggcc tgggatatgg    3780
ccatcctgga ttggcttcat cagaggaggc tgaaggccgg atgaggggcc ccagtgttgg    3840
agcctcagga agaaccagca aaagacagtc caacgagact tatcgagatg ctgttcgaag    3900
agtcatgttt gctcgatata aagaactcga ttaagaaagg agacaagttc catgggatac    3960
aacctccctc ttgtttttgtt tgtctctcct tttcttttgt tactgttctt gctgctagaa    4020
cttttttaaa taaacttttt ttcaatgtga ttaaaaaaaa                           4060
```

<210> 712
<211> 3736
<212> DNA
<213> Homo Sapiens

<400> 712

```
aaggaggagc gggccgtgga ggcttcgccg cctaggtact gctataacca gaatttggta     60
gaaaaaggat ttacttgttg gggccctctt gataaaaaga gatgtggggg gattctcgac    120
ctgctaacag aactggacct tttcgatcta ggaccttgtt acagaactct gccaaaaaaa    180
aaatgtttac agaagaatgt gctgtgatta gagaagaata tgctggtgtg tagatttcaa    240
actctntgga caatatgaat aacactgtct ttgtttctac agtgggagcc aagaagaaag    300
gtttgctccc gggtggaaca gggattatcc tcctcctccc cttaagagtc atgctcaaga    360
gagacactct ggcaactttc ctggcagaga ttcacttccc tttgatttcc aggggcattc    420
ggggcctcct tttgcaaatg tagaggagca ttctttcagc tatggagcta gagacggacc    480
gcatggtgac tatcgaggag gggagggacc tggacatgat ttcagggggg gagattttc    540
gtcttctgat ttccagagca gagattcatc acagttggac ttcaggggta gggacataca    600
ttctggggat tttcgggata gagaaggacc acctatggac tataggggtg gagatggtac    660
ttctatggat tatagaggta gggaggcacc tcatatgaac tacagagaca gggatgctca    720
cgctgttgac ttcagaggta gggatgctcc tccatctgac ttcaggggcc ggggcactta    780
tgatttagat tttagaggcc gggatggatc ccatgcagat tttaggggaa gggatttatc    840
agatttggat tttagggcca gagaacagtc ccgttctgat tttaggaata gagatgtatc    900
tgatttggac tttagagaca aagacggaac acaagtagac tttagaggcc gaggttcagg    960
tactactgat ctagacttta gggacaggga tacgccacat tcagatttca gaggtagaca   1020
ccgatctagg actgatcagg attttagggg cagagagatg ggatcttgta tggaatttaa   1080
agatagggag atgcccctg tggatccaaa tattttggat tacattcagc cctctacaca   1140
agatagagaa cattctggta tgaatgtgaa caggagagaa gaatccacac acgaccatac   1200
gatagaaagg cctgcttttg gcattcagaa gggagaattt gagcattcag aaacaagaga   1260
aggagaaaca caaggtgtag cctttgaaca tgagtctcca gcagactttc agaacagcca   1320
aagtccagtt caagaccaag ataagtcaca gctttctgga cgtgaagagc agagttcaga   1380
```

-381-

```
tgctggtctg tttaaagaag aaggcggtct ggactttctt gggcggcaag acaccgatta    1440
cagaagcatg gagtaccgtg atgtggatca taggctgcca ggaagccaga tgtttggcta    1500
tggccagagc aagtctttc cagagggcaa aactgcccga gatgcccaac gggaccttca     1560
ggatcaagat tataggaccg gcccaagtga ggagaaaccc agcaggctta ttcgattaag    1620
tggggtacct gaagatgcca caaaagaaga gattcttaat gcttttcgga ctcctgatgg    1680
catgcctgta aagaacttgc agttgaagga gtataacaca ggttacgact atggctatgt    1740
ctgcgtggag ttttcactct tggaagatgc catcggatgc atggaggcca accagggaac    1800
tctaatgatc caggacaaag aagttaccct ggagtatgta tcaagcctgg atttttggta    1860
ctgcaaacga tgtaaggcaa acattggtgg gcaccgatct tcctgttcat tctgcaagaa    1920
cccaagagaa gtgacagagg ccaagcaaga attaataacc taccctcagc ctcagaaaac    1980
atccatacca gcaccattgg aaaaacagcc caaccagccc ctaagaccag ctgataagga    2040
acctgaaccc aggaagaggg aagaaggcca agagtcacgc ttaggacatc aaaagagaga    2100
agcagaaagg tatctgcctc cttctcgaag ggaagggcca actttccgaa gagaccgaga    2160
gagggagtca tggtctggag agacacgcca ggatggagag agcaaaacta tcatgctaaa    2220
gcgtatctat cgttccacac cacctgaggt gatagtggaa gtgctggagc cctatgtccg    2280
ccttactact gccaacgtcc gtatcatcaa gaacagaaca ggccctatgg ggcataccta    2340
tggctttatt gacctcgact cccatgtgga agctcttcgt gtggtgaaga tcttacagaa    2400
ccttgatccg ccatttagca ttgatgggaa gatggtagct gtaaacctgg ccactggaaa    2460
acgaagaaat gattctgggg accattctga ccacatgcat tactatcagg gtaaaaaata    2520
tttccgagat aggaggggag gtggcagaaa ttcagactgg tcttcagata caaatcgaca    2580
aggacaacag tcatcatctg actgctacat atatgattct gctagtggct actattatga    2640
ccccttggca ggaacttatt atgaccccaa tacccagcaa gaagtctatg tgccccagga    2700
tcctggatta cctgaggaag aagagatcaa ggaaaaaaaa cccaccagtc aaggaaagtc    2760
aagtagcaag aaggaaatgt ctaaaagaga tggcaaggag aaaaaagaca gaggagtgac    2820
gaggtttcag gaaaatgcca gtgaagggaa ggcccctgca gaagacgtct ttaagaagcc    2880
cctgcctcct actgtgaaga aggaagagag tccccctcca cctaaagtgg taaacccact    2940
gatcggcctc ttgggtgaat atggaggaga cagtgactat gaggaggaag aagaggagga    3000
acagaccccт cccccacagc ccgcacagc acagccccag aagcgagagg agcaaaccaa     3060
gaaggagaat gaagaagaca aactcactga ctggaataaa ctggcttgtc tgctttgcag    3120
aaggcagttt cccaataaag aagttctgat caaacaccag cagctgtcag acctgcacaa    3180
gcaaaacctg gaaatccacc ggaagataaa acagtctgag caggagctag cctatctgga    3240
aaggagagaa cgagagggaa agtttaaagg aagaggaaat gatcgcaggg aaaagctcca    3300
gtcttttgac tctccagaaa ggaaacggat taagtactcc agggaaactg acagtgatcg    3360
taaacttgtt gataaagaag atatcgacac tagcagcaaa ggaggctgtg tccaacaggc    3420
tactggctgg aggaaaggga caggcctggg atatggccat cctggattgg cttcatcaga    3480
ggaggctgaa ggccggatga ggggccccag tgttggagcc tcaggaagaa ccagcaaaag    3540
acagtccaac gagacttatc gagatgctgt tcgaagagtc atgtttgctc gatataaaga    3600
actcgattaa gaaaggagac aagttccatg ggatacaacc tccctcttgt tttgtttgtc    3660
tctccttttc ttttgttact gttcttgctg ctagaacttt tttaaataaa cttttttca     3720
atgtgattaa aaaaaa                                                     3736
```

```
        <210> 713
        <211> 10
        <212> PRT
        <213> Homo Sapiens

        <400> 713
Asn Val Glu Glu Xaa His Ser Phe Ser Tyr
 1               5                   10

        <210> 714
        <211> 10
        <212> PRT
        <213> Homo Sapiens
```

```
        <400> 714
Pro Val Asp Pro Xaa Asn Ile Leu Asp Tyr
1               5               10


        <210> 715
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 715
Asp Thr Asp Tyr Xaa Arg Ser Met Glu Tyr
1               5               10


        <210> 716
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 716
Ser Leu Leu Glu Xaa Asp Ala Ile Gly Cys
1               5               10


        <210> 717
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 717
Thr Leu Met Ile Xaa Gln Asp Lys Glu Val
1               5               10


        <210> 718
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 718
Tyr Val Ser Ser Leu Asp Phe Trp Tyr Cys
1               5               10


        <210> 719
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 719
Val Ile Val Glu Val Leu Glu Pro Tyr Val
1               5               10


        <210> 720
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 720
```

Lys Leu Thr Asp Xaa Trp Asn Lys Leu Ala
1   5   10

        <210> 721
        <211> 10
        <212> PRT
        <213> Homo Sapiens

        <400> 721
Gln Leu Ser Asp Leu His Lys Gln Asn Leu
1   5   10

        <210> 722
        <211> 10
        <212> PRT
        <213> Homo Sapiens

        <400> 722
Lys Gln Ser Glu Gln Glu Leu Ala Tyr Leu
1   5   10

        <210> 723
        <211> 10
        <212> PRT
        <213> Homo Sapiens

        <400> 723
Lys Leu Val Asp Lys Glu Asp Ile Asp Thr
1   5   10

        <210> 724
        <211> 10
        <212> PRT
        <213> Homo Sapiens

        <400> 724
Val Met Phe Ala Xaa Arg Tyr Lys Glu Leu
1   5   10

        <210> 725
        <211> 10
        <212> PRT
        <213> Homo Sapiens

        <400> 725
Gln Met Phe Gly Xaa Tyr Gly Gln Ser Lys
1   5   10

        <210> 726
        <211> 10
        <212> PRT
        <213> Homo Sapiens

        <400> 726
Gly Met Pro Val Lys Asn Leu Gln Leu Lys

1   5   10

```
      <210> 727
      <211> 10
      <212> PRT
      <213> Homo Sapiens

      <400> 727
Gly Leu Pro Glu Xaa Glu Glu Glu Ile Lys
1                  5                      10

      <210> 728
      <211> 10
      <212> PRT
      <213> Homo Sapiens

      <400> 728
Leu Leu Cys Arg Arg Gln Phe Pro Asn Lys
1                  5                      10

      <210> 729
      <211> 10
      <212> PRT
      <213> Homo Sapiens

      <400> 729
Glu Tyr Arg Asp Xaa Val Asp His Arg Leu
1                  5                      10

      <210> 730
      <211> 10
      <212> PRT
      <213> Homo Sapiens

      <400> 730
Gly Tyr Val Cys Xaa Val Glu Phe Ser Leu
1                  5                      10

      <210> 731
      <211> 10
      <212> PRT
      <213> Homo Sapiens

      <400> 731
Asp Tyr Gly Tyr Xaa Val Cys Val Glu Phe
1                  5                      10

      <210> 732
      <211> 10
      <212> PRT
      <213> Homo Sapiens

      <400> 732
Trp Tyr Cys Lys Arg Cys Lys Ala Asn Ile
1                  5                      10
```

```
<210> 733
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 733
Thr Tyr Pro Gln Pro Gln Lys Thr Ser Ile
1                5                  10


<210> 734
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 734
Ile Tyr Arg Ser Thr Pro Pro Glu Val Ile
1                5                  10


<210> 735
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 735
His Tyr Tyr Gln Xaa Gly Lys Lys Tyr Phe
1                5                  10


<210> 736
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 736
Val Tyr Val Pro Xaa Gln Asp Pro Gly Leu
1                5                  10


<210> 737
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 737
Trp Asn Arg Asp Tyr Pro Pro Pro Leu
1                5                  10


<210> 738
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 738
Met Pro Pro Val Xaa Asp Pro Asn Ile Leu
1                5                  10


<210> 739
```

```
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 739
Thr Ala Arg Asp Xaa Ala Gln Arg Asp Leu
1               5                   10


<210> 740
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 740
Gly Pro Ser Glu Glu Lys Pro Ser Arg Leu
1               5                   10


<210> 741
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 741
Thr Pro Pro Glu Val Ile Val Glu Val Leu
1               5                   10


<210> 742
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 742
Arg Val Met Phe Ala Arg Tyr Lys Glu Leu
1               5                   10


<210> 743
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 743
Arg Glu Met Gly Xaa Ser Cys Met Glu Phe
1               5                   10


<210> 744
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 744
Glu Glu Gln Ser Ser Asp Ala Gly Leu Phe
1               5                   10


<210> 745
<211> 10
```

```
        <212> PRT
        <213> Homo Sapiens


        <400> 745
Lys Glu Tyr Asn Xaa Thr Gly Tyr Asp Tyr
1               5                   10


        <210> 746
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 746
Thr Glu Ala Lys Gln Glu Leu Ile Thr Tyr
1               5                   10


        <210> 747
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 747
Val Glu Ala Leu Arg Val Val Lys Ile Leu
1               5                   10


        <210> 748
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 748
Gly Glu Tyr Gly Xaa Gly Asp Ser Asp Tyr
1               5                   10


        <210> 749
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 749
Leu Glu Arg Arg Glu Arg Glu Gly Lys Phe
1               5                   10


        <210> 750
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 750
Arg Gln Asp Gly Glu Ser Lys Thr Ile Met
1               5                   10


        <210> 751
        <211> 10
        <212> PRT
```

```
    <213> Homo Sapiens

    <400> 751
Thr Pro Pro Glu Val Ile Val Glu Val Leu
1               5               10

    <210> 752
    <211> 10
    <212> PRT
    <213> Homo Sapiens

    <400> 752
Tyr Gly Phe Ile Asp Leu Asp Ser His Val
1               5               10

    <210> 753
    <211> 10
    <212> PRT
    <213> Homo Sapiens

    <400> 753
Arg Gln Phe Pro Xaa Asn Lys Glu Val Leu
1               5               10

    <210> 754
    <211> 10
    <212> PRT
    <213> Homo Sapiens

    <400> 754
Asn Val Glu Glu Xaa His Ser Phe Ser Tyr
1               5               10

    <210> 755
    <211> 10
    <212> PRT
    <213> Homo Sapiens

    <400> 755
Pro Val Asp Pro Xaa Asn Ile Leu Asp Tyr
1               5               10

    <210> 756
    <211> 10
    <212> PRT
    <213> Homo Sapiens

    <400> 756
Asp Thr Asp Tyr Xaa Arg Ser Met Glu Tyr
1               5               10

    <210> 757
    <211> 10
    <212> PRT
    <213> Homo Sapiens
```

```
    <400> 757
Trp Gln Ser Ala Xaa Arg Phe Tyr Tyr Leu
1               5               10


    <210> 758
    <211> 10
    <212> PRT
    <213> Homo Sapiens


    <400> 758
Ser Leu Leu Glu Xaa Asp Ala Ile Gly Cys
1               5               10


    <210> 759
    <211> 10
    <212> PRT
    <213> Homo Sapiens


    <400> 759
Thr Leu Met Ile Xaa Gln Asp Lys Glu Val
1               5               10


    <210> 760
    <211> 10
    <212> PRT
    <213> Homo Sapiens


    <400> 760
Tyr Val Ser Ser Leu Asp Phe Trp Tyr Cys
1               5               10


    <210> 761
    <211> 10
    <212> PRT
    <213> Homo Sapiens


    <400> 761
Val Ile Val Glu Val Leu Glu Pro Tyr Val
1               5               10


    <210> 762
    <211> 10
    <212> PRT
    <213> Homo Sapiens


    <400> 762
Lys Leu Thr Asp Xaa Trp Asn Lys Leu Ala
1               5               10


    <210> 763
    <211> 10
    <212> PRT
    <213> Homo Sapiens


    <400> 763
```

```
Gln Leu Ser Asp Leu His Lys Gln Asn Leu
1               5                   10
```

```
        <210> 764
        <211> 10
        <212> PRT
        <213> Homo Sapiens
```

```
        <400> 764
Lys Gln Ser Glu Gln Glu Leu Ala Tyr Leu
1               5                   10
```

```
        <210> 765
        <211> 10
        <212> PRT
        <213> Homo Sapiens
```

```
        <400> 765
Lys Leu Val Asp Lys Glu Asp Ile Asp Thr
1               5                   10
```

```
        <210> 766
        <211> 10
        <212> PRT
        <213> Homo Sapiens
```

```
        <400> 766
Val Met Phe Ala Xaa Arg Tyr Lys Glu Leu
1               5                   10
```

```
        <210> 767
        <211> 10
        <212> PRT
        <213> Homo Sapiens
```

```
        <400> 767
Gln Met Phe Gly Xaa Tyr Gly Gln Ser Lys
1               5                   10
```

```
        <210> 768
        <211> 10
        <212> PRT
        <213> Homo Sapiens
```

```
        <400> 768
Gly Met Pro Val Lys Asn Leu Gln Leu Lys
1               5                   10
```

```
        <210> 769
        <211> 10
        <212> PRT
        <213> Homo Sapiens
```

```
        <400> 769
Gly Leu Pro Glu Xaa Glu Glu Glu Ile Lys
```

1   5   10

```
      <210> 770
      <211> 10
      <212> PRT
      <213> Homo Sapiens


      <400> 770
Leu Leu Cys Arg Arg Gln Phe Pro Asn Lys
1                 5                 10


      <210> 771
      <211> 10
      <212> PRT
      <213> Homo Sapiens


      <400> 771
Tyr Tyr Leu Asn Xaa Ala Thr Asp Val Leu
1                 5                 10


      <210> 772
      <211> 10
      <212> PRT
      <213> Homo Sapiens


      <400> 772
Phe Tyr Tyr Leu Asn Ala Thr Asp Val Leu
1                 5                 10


      <210> 773
      <211> 10
      <212> PRT
      <213> Homo Sapiens


      <400> 773
Glu Tyr Arg Asp Xaa Val Asp His Arg Leu
1                 5                 10


      <210> 774
      <211> 10
      <212> PRT
      <213> Homo Sapiens


      <400> 774
Gly Tyr Val Cys Xaa Val Glu Phe Ser Leu
1                 5                 10


      <210> 775
      <211> 10
      <212> PRT
      <213> Homo Sapiens


      <400> 775
Asp Tyr Gly Tyr Xaa Val Cys Val Glu Phe
1                 5                 10
```

```
        <210> 776
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 776
Trp Tyr Cys Lys Arg Cys Lys Ala Asn Ile
1               5                   10


        <210> 777
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 777
Thr Tyr Pro Gln Pro Gln Lys Thr Ser Ile
1               5                   10


        <210> 778
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 778
Ile Tyr Arg Ser Thr Pro Pro Glu Val Ile
1               5                   10


        <210> 779
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 779
His Tyr Tyr Gln Xaa Gly Lys Lys Tyr Phe
1               5                   10


        <210> 780
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 780
Val Tyr Val Pro Xaa Gln Asp Pro Gly Leu
1               5                   10


        <210> 781
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 781
Trp Asn Arg Asp Tyr Pro Pro Pro Pro Leu
1               5                   10


        <210> 782
```

```
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 782
Met Pro Pro Val Xaa Asp Pro Asn Ile Leu
1               5                   10


        <210> 783
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 783
Thr Ala Arg Asp Xaa Ala Gln Arg Asp Leu
1               5                   10


        <210> 784
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 784
Gly Pro Ser Glu Glu Lys Pro Ser Arg Leu
1               5                   10


        <210> 785
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 785
Thr Pro Pro Glu Val Ile Val Glu Val Leu
1               5                   10


        <210> 786
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 786
Arg Val Met Phe Ala Arg Tyr Lys Glu Leu
1               5                   10


        <210> 787
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 787
Ser Glu Ala Trp Ser Ser Asn Glu Lys Phe
1               5                   10


        <210> 788
        <211> 10
```

```
        <212> PRT
        <213> Homo Sapiens


        <400> 788
Arg Glu Met Gly Xaa Ser Cys Met Glu Phe
1               5               10


        <210> 789
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 789
Glu Glu Gln Ser Ser Asp Ala Gly Leu Phe
1               5               10


        <210> 790
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 790
Lys Glu Tyr Asn Xaa Thr Gly Tyr Asp Tyr
1               5               10


        <210> 791
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 791
Thr Glu Ala Lys Gln Glu Leu Ile Thr Tyr
1               5               10


        <210> 792
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 792
Val Glu Ala Leu Arg Val Val Lys Ile Leu
1               5               10


        <210> 793
        <211> 10
        <212> PRT
        <213> Homo Sapiens


        <400> 793
Gly Glu Tyr Gly Xaa Gly Asp Ser Asp Tyr
1               5               10


        <210> 794
        <211> 10
        <212> PRT
```

        <213> Homo Sapiens

        <400> 794
Leu Glu Arg Arg Glu Arg Glu Gly Lys Phe
 1   5   10

        <210> 795
        <211> 10
        <212> PRT
        <213> Homo Sapiens

        <400> 795
Arg Gln Asp Gly Glu Ser Lys Thr Ile Met
 1   5   10

        <210> 796
        <211> 10
        <212> PRT
        <213> Homo Sapiens

        <400> 796
Thr Pro Pro Glu Val Ile Val Glu Val Leu
 1   5   10

        <210> 797
        <211> 10
        <212> PRT
        <213> Homo Sapiens

        <400> 797
Tyr Gly Phe Ile Asp Leu Asp Ser His Val
 1   5   10

        <210> 798
        <211> 10
        <212> PRT
        <213> Homo Sapiens

        <400> 798
Arg Gln Phe Pro Xaa Asn Lys Glu Val Leu
 1   5   10

        <210> 799
        <211> 1464
        <212> DNA
        <213> Homo Sapiens

        <400> 799
agtaccgggt acgcaggggt gcctcaacca cactccgtcc acggactctc cgttatttta   60
ggaggtccct ggccaaagat ttatttctct tgacaaccaa gggcctccgt ctggatttcc   120
aaggaagaat ttcctctgaa gcaccggaac ttgctactac cagcaccatg ccctaccaat   180
atccagcact gaccccggag cagaagaagg agctgtctga catcgctcac cgcatcgtgg   240
cacctggcaa gggcatcctg gctgcagatg agtccactgg gagcattgcc aagcggctgc   300
agtccattgg caccgagaac accgaggaga accggcgctt ctaccgccag ctgctgctga   360
cagctgacga ccgcgtgaac ccctgcattg ggggtgtcat cctcttccat gagacactct   420

```
accagaaggc ggatgatggg cgtcccttcc cccaagttat caaatccaag ggcggtgttg    480
tgggcatcaa ggtagacaag ggcgtggtcc ccctggcagg gacaaatggc gagactacca    540
cccaagggtt ggatgggctg tctgagcgct gtgcccagta caagaaggac ggagctgact    600
tcgccaagtg gcgttgtgtg ctgaagattg gggaacacac cccctcagcc ctcgccatca    660
tggaaaatgc caatgttctg gcccgttatg ccagtatctg ccagcagaat ggcattgtgc    720
ccatcgtgga gcctgagatc ctccctgatg gggaccatga cttgaagcgc tgccagtatg    780
tgaccgagaa ggtgctggct gctgtctaca aggctctgag tgaccaccac atctacctgg    840
aaggcacctt gctgaagccc aacatggtca ccccaggcca tgcttgcact cagaagtttt    900
ctcatgagga gattgccatg gcgaccgtca cagcgctgcg ccgcacagtg cccccgctg    960
tcactgggat caccttcctg tctggaggcc agagtgagga ggaggcgtcc atcaacctca   1020
atgccattaa caagtgcccc ctgctgaagc cctgggccct gaccttctcc tacggccgag   1080
ccctgcaggc ctctgccctg aaggcctggg gcgggaagaa ggagaacctg aaggctgcgc   1140
aggaggagta tgtcaagcga gccctggcca acagccttgc ctgtcaagga aagtacactc   1200
cgagcggtca ggctggggct gctgccagcg agtccctctt cgtctctaac cacgccatt   1260
aagcggaggt gttcccaggc tgcccccaac aactccaggc cctgcccccct cccactcttg   1320
aagaggaggc cgcctcctcg gggctccagg ctggcttgcc cgcgctcttt cttccctcgt   1380
gacagtggtg tgtggtgtcg tctgtgaatg ctaagtccat cacccttt cc ggcacactgc   1440
caaataaaca gctatttaag gggg                                          1464
```

```
      <210> 800
      <211> 364
      <212> PRT
      <213> Homo Sapiens

      <400> 800
Met Pro Tyr Gln Tyr Pro Ala Leu Thr Pro Glu Gln Lys Lys Glu Leu
1               5                  10                  15
Ser Asp Ile Ala His Arg Ile Val Ala Pro Gly Lys Gly Ile Leu Ala
            20                  25                  30
Ala Asp Glu Ser Thr Gly Ser Ile Ala Lys Arg Leu Gln Ser Ile Gly
        35                  40                  45
Thr Glu Asn Thr Glu Glu Asn Arg Arg Phe Tyr Arg Gln Leu Leu Leu
    50                  55                  60
Thr Ala Asp Asp Arg Val Asn Pro Cys Ile Gly Gly Val Ile Leu Phe
65                  70                  75                  80
His Glu Thr Leu Tyr Gln Lys Ala Asp Asp Gly Arg Pro Phe Pro Gln
                85                  90                  95
Val Ile Lys Ser Lys Gly Gly Val Val Gly Ile Lys Val Asp Lys Gly
            100                 105                 110
Val Val Pro Leu Ala Gly Thr Asn Gly Glu Thr Thr Thr Gln Gly Leu
        115                 120                 125
Asp Gly Leu Ser Glu Arg Cys Ala Gln Tyr Lys Lys Asp Gly Ala Asp
    130                 135                 140
Phe Ala Lys Trp Arg Cys Val Leu Lys Ile Gly Glu His Thr Pro Ser
145                 150                 155                 160
Ala Leu Ala Ile Met Glu Asn Ala Asn Val Leu Ala Arg Tyr Ala Ser
                165                 170                 175
Ile Cys Gln Gln Asn Gly Ile Val Pro Ile Val Glu Pro Glu Ile Leu
            180                 185                 190
Pro Asp Gly Asp His Asp Leu Lys Arg Cys Gln Tyr Val Thr Glu Lys
            195                 200                 205
Val Leu Ala Ala Val Tyr Lys Ala Leu Ser Asp His His Ile Tyr Leu
        210                 215                 220
Glu Gly Thr Leu Leu Lys Pro Asn Met Val Thr Pro Gly His Ala Cys
225                 230                 235                 240
```

-397-

```
Thr Gln Lys Phe Ser His Glu Glu Ile Ala Met Ala Thr Val Thr Ala
            245                 250                 255
Leu Arg Arg Thr Val Pro Pro Ala Val Thr Gly Ile Thr Phe Leu Ser
            260                 265                 270
Gly Gly Gln Ser Glu Glu Glu Ala Ser Ile Asn Leu Asn Ala Ile Asn
            275                 280                 285
Lys Cys Pro Leu Leu Lys Pro Trp Ala Leu Thr Phe Ser Tyr Gly Arg
        290             295                 300
Ala Leu Gln Ala Ser Ala Leu Lys Ala Trp Gly Gly Lys Lys Glu Asn
305             310                 315                 320
Leu Lys Ala Ala Gln Glu Glu Tyr Val Lys Arg Ala Leu Ala Asn Ser
            325                 330                 335
Leu Ala Cys Gln Gly Lys Tyr Thr Pro Ser Gly Gln Ala Gly Ala Ala
            340                 345                 350
Ala Ser Glu Ser Leu Phe Val Ser Asn His Ala Tyr
    355                 360
```

```
        <210> 801
        <211> 3504
        <212> DNA
        <213> Homo Sapiens

        <400> 801
ctctgctttt ctcttcaga gctgttgcgc agccattggt acctgtattg gggaaacata      60
gcatacaagc aagaagctta cagcctcagt ggcgaaaaat ttttcatgtc agagaccgag     120
aactcttgca gtcgtttatg tcatcccttc ttctccagac agaagatacc aaaaagttgc     180
aatcaaagat ctgttcatct tattgataaa gtcactaata agccaaaatg tctgtcaacg     240
tcaaccgcag cgtgtcagac cagttctatc gctacaagat gccccgtttg attgctaagg     300
ttgagggcaa aggaaatgga atcaagacag ttatagtcaa catggttgac gttgcaaagg     360
cgcttaatcg gcctccaacg tatcccacca atatttttgg ttgtgagctg ggagcacaga     420
cccagtttga tgttaagaat gaccgttaca ttgtcaatgg atctcatgag gcgaataagc     480
tgcaagacat gttggatgga ttcattaaaa aatttgttct ctgtcctgag tgtgagaatc     540
ctgaaacaga tctgcatgtc aatccaaaga agcaaacaat aggtaattct tgtaaagcct     600
gtgggtaccg aggcatgctt gacacacatc ataaactctg tacattcatt ctcaaaaacc     660
cacctgagaa tagtgacatt ggtacaggaa agaaagagaa agaaaagaaa aatagaaagg     720
gcaaggacaa ggaaaatggc tctgtatcca ccagtgagac accaccacct ccaccaccaa     780
atgaaattag tcctccacat gctgtggaag aagaggaaga tgatgattgg ggggaggata     840
caactgagga agctcaaagg cgcagaatgg atgaaatcag tgaccatgca aaaggtctga     900
cacttagcga tgatttggaa agaactgtag aagagcgtgt taacatcctg tttgattttg     960
ttaagaaaaa gaaagaagag ggcattattg attcatctga taaagacatt gtggctgagg    1020
cagaaagact ggatgtaaaa gccatgggcc ctctcgtttt gacagaagtt ctctttgatg    1080
agaagataag agagcaaatc aagaaataca ggcgccattt tttaagattt tgtcataaca    1140
acaaaaaggc ccagcggtac cttcttcatg gtttggaatg tgtggtagca atgcatcaag    1200
ctcagttgat ctccaagatt ccacatatct tgaaggagat gtatgatgca gaccttttag    1260
aggaagaggt cattatcagc tggtcagaaa aggcctctaa gaaatatgtc tcaaaagaac    1320
ttgccaaaga gattcgtgtc aaagcagagc catttattaa atggttgaag gaagcggagg    1380
aggaatcttc tggtggtgag gaagaagacg aagatgaaaa tattgaggtg gtatattcga    1440
agactgccag tgtaccaaaa gttgaaactg tgaagtctga caacaaggat gacgacattg    1500
atattgatgc catttaaaag gatggatgca acttagctta acagtgtaat gctgcaaatt    1560
tttctccatt atcagccaga agtgcaacat gtatgtgcaa gagctaaagt ggcttaacat    1620
catgctacac ttgatactaa aaagctatta ctgtgagtgg tctataatta agcccaatga    1680
gacatctagg gagtccatac atatcagtga gcagttgtag tttgcttatt tatagcatgt    1740
ttctttcgga aaaactagtg gtggacacat ttggatcaca tttatacagt tataaaaaat    1800
aaagatttga ttttggtcat tcttcagact ttgggctatg aatggcttat gctgaagtaa    1860
ttggctactt ttaggatgtt acaccattta ataacttaga cttcttaagt ttggtagatt    1920
```

```
gttaggtact gaagacttga agaatgcaaa caattataat gaccttactc agccattaag   1980
aaatgaagta ttttgaaagt tgtgtctcca gtccattgag attggcaact gacaattctt   2040
gtcattctaa ggaaatttga tgatttaatg acagtgtgac atcctcatga gaagtaaaaa   2100
tgacctgtgt gtcctatggt ttaagagcaa attttgaaac ttggagttgt ggttttcag    2160
tttgtgtaca ctcaccccaa attgtagtct attgagtcat gtgcattgca cgttggataa   2220
gccagggaaa tgacaaataa gtattttgtg tgtatttagt ggttgctttg tactgagaga   2280
aaagctttga ggtgtgatta aatcgtaaac tctgattcta tttgggagaa acaggaaaaa   2340
ggtgcactta atctaaaaca gcataagttt tcaactttta cccttaaatt ataatttcaa   2400
gatgtttaga catactgtat cttgtgtttg atgtgttccc cctccctaat attatggttt   2460
attctttaat gcctttaat ttggatataa tagcttgtac tttagatttt ggttgctatc    2520
ttgccaaaat aagtgttact gttttcaag cttgatcccc ttccctgatt gtcttattta    2580
aagagaaagt taaactcata cttctgagtc agagcctgta tttggttaa gacttgggat     2640
attttttact tcacattgaa tatagctgga tacctgagaa gtctggtgat ggcactgggt   2700
gggtgcagct agctaaggcc tgaccagccc attcagagcc ttggacttca gacacaaaag   2760
tgagtttctt acccacttgc tggtgtaaac tctatctggg gtcctgacta tatttgaata   2820
cttgtcttca atattaaaaa acatagcaca tttttctttc tacaaaagta cattctggag   2880
ttaagaaccc atgtggttga tttgtgtgtg gcgtgctagc tcatacatta tttggatctt   2940
attctttgtg tcatccatct cacagattat aagacttga ttaatgtaaa aagtatgcgt     3000
taaaatcata ccaaacattt ggtaaaatta aaaccttgat gggaggctgg gcgtggaaca   3060
ggagccatat acctggaatg gtaacagggg aatgtgctat gtcacaccaa agaagtggga   3120
cttggaaagt cacttgtctc ctgggtttca gactctttgt tgcatgggca gcccatccat   3180
atgtcattac ttttttgagat tctcaagtag atcagcacat ttcggcctca ggttggcaag   3240
attttgtctt agagctgttg ctttaaaggg aaatggtcag gtcttagaca cttaggaagg   3300
tcttgggctt ctgttcattc tggtgccaaa ccagtgggat tcaaatttca cacaatctgg   3360
gtttttattc atggaggtta acctggtaag agtaatcctt catggctcta ttgaggtgtc   3420
ttaaaaagtt tcctgtttca aacagctaca ttacttgatt aaaacaatgt tataaaatta   3480
aatttccccc tcctttcata ttaa                                          3504
```

```
        <210> 802
        <211> 429
        <212> PRT
        <213> Homo Sapiens

        <400> 802
Met Ser Val Asn Val Asn Arg Ser Val Ser Asp Gln Phe Tyr Arg Tyr
1               5                   10                  15
Lys Met Pro Arg Leu Ile Ala Lys Val Glu Gly Lys Gly Asn Gly Ile
            20                  25                  30
Lys Thr Val Ile Val Asn Met Val Asp Val Ala Lys Ala Leu Asn Arg
        35                  40                  45
Pro Pro Thr Tyr Pro Thr Lys Tyr Phe Gly Cys Glu Leu Gly Ala Gln
        50                  55                  60
Thr Gln Phe Asp Val Lys Asn Asp Arg Tyr Ile Val Asn Gly Ser His
65                  70                  75                  80
Glu Ala Asn Lys Leu Gln Asp Met Leu Asp Gly Phe Ile Lys Lys Phe
                85                  90                  95
Val Leu Cys Pro Glu Cys Glu Asn Pro Glu Thr Asp Leu His Val Asn
            100                 105                 110
Pro Lys Lys Gln Thr Ile Gly Asn Ser Cys Lys Ala Cys Gly Tyr Arg
        115                 120                 125
Gly Met Leu Asp Thr His His Lys Leu Cys Thr Phe Ile Leu Lys Asn
        130                 135                 140
Pro Pro Glu Asn Ser Asp Ile Gly Thr Gly Lys Glu Lys Glu Lys
145                 150                 155                 160
Lys Asn Arg Lys Gly Lys Asp Lys Glu Asn Gly Ser Val Ser Thr Ser
```

-399-

```
                165                      170                      175
Glu Thr Pro Pro Pro Pro Pro Pro Asn Glu Ile Ser Pro Pro His Ala
            180                      185                  190
Val Glu Glu Glu Glu Asp Asp Asp Trp Gly Glu Asp Thr Thr Glu Glu
        195                      200                  205
Ala Gln Arg Arg Arg Met Asp Glu Ile Ser Asp His Ala Lys Gly Leu
    210                      215                  220
Thr Leu Ser Asp Asp Leu Glu Arg Thr Val Glu Glu Arg Val Asn Ile
225                      230                  235                  240
Leu Phe Asp Phe Val Lys Lys Lys Lys Glu Glu Gly Ile Ile Asp Ser
            245                      250                  255
Ser Asp Lys Asp Ile Val Ala Glu Ala Glu Arg Leu Asp Val Lys Ala
        260                      265                  270
Met Gly Pro Leu Val Leu Thr Glu Val Leu Phe Asp Glu Lys Ile Arg
    275                      280                  285
Glu Gln Ile Lys Lys Tyr Arg Arg His Phe Leu Arg Phe Cys His Asn
    290                      295                  300
Asn Lys Lys Ala Gln Arg Tyr Leu Leu His Gly Leu Glu Cys Val Val
305                      310                  315                  320
Ala Met His Gln Ala Gln Leu Ile Ser Lys Ile Pro His Ile Leu Lys
            325                      330                  335
Glu Met Tyr Asp Ala Asp Leu Leu Glu Glu Glu Val Ile Ile Ser Trp
            340                      345                  350
Ser Glu Lys Ala Ser Lys Lys Tyr Val Ser Lys Glu Leu Ala Lys Glu
        355                      360                  365
Ile Arg Val Lys Ala Glu Pro Phe Ile Lys Trp Leu Lys Glu Ala Glu
    370                      375                  380
Glu Glu Ser Ser Gly Gly Glu Glu Glu Asp Glu Asp Glu Asn Ile Glu
385                      390                  395                  400
Val Val Tyr Ser Lys Thr Ala Ser Val Pro Lys Val Glu Thr Val Lys
            405                      410                  415
Ser Asp Asn Lys Asp Asp Asp Ile Asp Ile Asp Ala Ile
            420                  425
```

```
            <210> 803
            <211> 2251
            <212> DNA
            <213> Homo Sapiens

            <400> 803
aggatgtctt ctggcaattt catataagta ttttttcaaa aatgtctctt ctgtcaaccc      60
cacgcctttg gcacaatgaa gtgggtaacc tttatttccc ttcttttttct ctttagctcg     120
gcttattcca ggggtgtgtt tcgtcgagat gcacacaaga gtgaggttgc tcatcggttt     180
aaagatttgg gagaagaaaa tttcaaagcc ttggtgttga ttgcctttgc tcagtatctt     240
cagcagtgtc catttgaaga tcatgtaaaa ttagtgaatg aagtaactga atttgcaaaa     300
acatgtgtag ctgatgagtc agctgaaaat tgtgacaaat cacttcatac cctttttgga     360
gacaaattat gcacagttgc aactcttcgt gaaacctatg gtgaaatggc tgactgctgt     420
gcaaaacaag aacctgagag aaatgaatgc ttcttgcaac acaaagatga caacccaaac     480
ctcccccgat tggtgagacc agaggttgat gtgatgtgca ctgctttttca tgacaatgaa     540
gagacatttt tgaaaaaata cttatatgaa attgccagaa gacatcctta cttttatgcc     600
ccggaactcc tttctcttgc taaaaggtat aaagctgctt ttacagaatg ttgccaagct     660
gctgataaag ctgcctgcct gttgccaaag ctcgatgaac ttcgggatga agggaaggct     720
tcgtctgcca aacagagact caaatgtgcc agtctccaaa aatttggaga aagagctttc     780
aaagcatggg cagtggctcg cctgagccag agatttccca agctgagtt tgcagaagtt     840
tccaagttag tgacagatct taccaaagtc cacacggaat gctgccatgg agatctgctt     900
```

```
gaatgtgctg atgacagggc ggaccttgcc aagtatatct gtgaaaatca ggattcgatc   960
tccagtaaac tgaaggaatg ctgtgaaaaa cctctgttgg aaaaatccca ctgcattgcc  1020
gaagtggaaa atgatgagat gcctgctgac ttgccttcat tagctgctga ttttgttgaa  1080
agtaaggatg tttgcaaaaa ctatgctgag gcaaaggatg tcttcctggg catgtttttg  1140
tatgaatatg caagaaggca tcctgattac tctgtcgtgc tgctgctgag acttgccaag  1200
acatatgaaa ccactctaga gaagtgctgt gccgctgcag atcctcatga atgctatgcc  1260
aaagtgttcg atgaatttaa acctcttgtg gaagagcctc agaatttaat caaacaaaac  1320
tgtgagcttt ttaagcagct tggagagtac aaaattccaga atgcgctatt agttcgttac  1380
accaagaaag taccccaagt gtcaactcca actcttgtag aggtctcaag aaacctagga  1440
aaagtgggca gcaaatgttg taaacatcct gaagcaaaaa gaatgccctg tgcagaagac  1500
tatctatccg tggtcctgaa ccagttatgt gtgttgcatg agaaaacgcc agtaagtgac  1560
agagtcacaa aatgctgcac agagtccttg gtgaacaggc gaccatgctt ttcagctctg  1620
gaagtcgatg aaacatacgt tcccaaagag tttaatgctg aaacattcac cttccatgca  1680
gatatatgca cactttctga gaaggagaga caaatcaaga aacaaactgc acttgttgag  1740
cttgtgaaac acaagcccaa ggcaacaaaa gagcaactga agctgttat ggatgatttc   1800
gcagcttttg tagagaagtg ctgcaaggct gacgataagg agacctgctt tgccgaggag  1860
ggtaaaaaac ttgttgctgc aagtcaagct gccttaggct tataacatct acatttaaaa  1920
gcatctcagc ctaccatgag aataagagaa agaaatgaa gatcaaaagc ttattcatct  1980
gttttctttt tcgttggtgt aaagccaaca ccctgtctaa aaaacataaa tttctttaat  2040
cattttgcct cttttctctg tgcttcaatt aataaaaaat ggaaagaatc taatagagtg  2100
gtacagcact gttattttc aaagatgtgt tgctatcctg aaaattctgt aggttctgtg  2160
gaagttccag tgttctctct tattccactt cggtagagga tttctagttt ctgtgggcta  2220
attaaataaa tcactaatac tcttctaagt t                                 2251
```

```
        <210> 804
        <211> 609
        <212> PRT
        <213> Homo Sapiens

        <400> 804
Met Lys Trp Val Thr Phe Ile Ser Leu Leu Phe Leu Phe Ser Ser Ala
1               5                   10                  15
Tyr Ser Arg Gly Val Phe Arg Arg Asp Ala His Lys Ser Glu Val Ala
            20                  25                  30
His Arg Phe Lys Asp Leu Gly Glu Glu Asn Phe Lys Ala Leu Val Leu
        35                  40                  45
Ile Ala Phe Ala Gln Tyr Leu Gln Gln Cys Pro Phe Glu Asp His Val
    50                  55                  60
Lys Leu Val Asn Glu Val Thr Glu Phe Ala Lys Thr Cys Val Ala Asp
65                  70                  75                  80
Glu Ser Ala Glu Asn Cys Asp Lys Ser Leu His Thr Leu Phe Gly Asp
                85                  90                  95
Lys Leu Cys Thr Val Ala Thr Leu Arg Glu Thr Tyr Gly Glu Met Ala
            100                 105                 110
Asp Cys Cys Ala Lys Gln Glu Pro Glu Arg Asn Glu Cys Phe Leu Gln
        115                 120                 125
His Lys Asp Asp Asn Pro Asn Leu Pro Arg Leu Val Arg Pro Glu Val
    130                 135                 140
Asp Val Met Cys Thr Ala Phe His Asp Asn Glu Glu Thr Phe Leu Lys
145                 150                 155                 160
Lys Tyr Leu Tyr Glu Ile Ala Arg Arg His Pro Tyr Phe Tyr Ala Pro
                165                 170                 175
Glu Leu Leu Phe Phe Ala Lys Arg Tyr Lys Ala Ala Phe Thr Glu Cys
                180                 185                 190
Cys Gln Ala Ala Asp Lys Ala Ala Cys Leu Leu Pro Lys Leu Asp Glu
```

```
              195                    200                    205
Leu Arg Asp Glu Gly Lys Ala Ser Ser Ala Lys Gln Arg Leu Lys Cys
        210                    215                    220
Ala Ser Leu Gln Lys Phe Gly Glu Arg Ala Phe Lys Ala Trp Ala Val
225                    230                    235                    240
Ala Arg Leu Ser Gln Arg Phe Pro Lys Ala Glu Phe Ala Glu Val Ser
                245                    250                    255
Lys Leu Val Thr Asp Leu Thr Lys Val His Thr Glu Cys Cys His Gly
            260                    265                    270
Asp Leu Leu Glu Cys Ala Asp Asp Arg Ala Asp Leu Ala Lys Tyr Ile
        275                    280                    285
Cys Glu Asn Gln Asp Ser Ile Ser Ser Lys Leu Lys Glu Cys Cys Glu
        290                    295                    300
Lys Pro Leu Leu Glu Lys Ser His Cys Ile Ala Glu Val Glu Asn Asp
305                    310                    315                    320
Glu Met Pro Ala Asp Leu Pro Ser Leu Ala Ala Asp Phe Val Glu Ser
                325                    330                    335
Lys Asp Val Cys Lys Asn Tyr Ala Glu Ala Lys Asp Val Phe Leu Gly
            340                    345                    350
Met Phe Leu Tyr Glu Tyr Ala Arg Arg His Pro Asp Tyr Ser Val Val
            355                    360                    365
Leu Leu Leu Arg Leu Ala Lys Thr Tyr Glu Thr Thr Leu Glu Lys Cys
        370                    375                    380
Cys Ala Ala Ala Asp Pro His Glu Cys Tyr Ala Lys Val Phe Asp Glu
385                    390                    395                    400
Phe Lys Pro Leu Val Glu Glu Pro Gln Asn Leu Ile Lys Gln Asn Cys
                405                    410                    415
Glu Leu Phe Lys Gln Leu Gly Glu Tyr Lys Phe Gln Asn Ala Leu Leu
            420                    425                    430
Val Arg Tyr Thr Lys Lys Val Pro Gln Val Ser Thr Pro Thr Leu Val
            435                    440                    445
Glu Val Ser Arg Asn Leu Gly Lys Val Gly Ser Lys Cys Cys Lys His
        450                    455                    460
Pro Glu Ala Lys Arg Met Pro Cys Ala Glu Asp Tyr Leu Ser Val Val
465                    470                    475                    480
Leu Asn Gln Leu Cys Val Leu His Glu Lys Thr Pro Val Ser Asp Arg
                485                    490                    495
Val Thr Lys Cys Cys Thr Glu Ser Leu Val Asn Arg Arg Pro Cys Phe
            500                    505                    510
Ser Ala Leu Glu Val Asp Glu Thr Tyr Val Pro Lys Glu Phe Asn Ala
        515                    520                    525
Glu Thr Phe Thr Phe His Ala Asp Ile Cys Thr Leu Ser Glu Lys Glu
        530                    535                    540
Arg Gln Ile Lys Lys Gln Thr Ala Leu Val Glu Leu Val Lys His Lys
545                    550                    555                    560
Pro Lys Ala Thr Lys Glu Gln Leu Lys Ala Val Met Asp Asp Phe Ala
                565                    570                    575
Ala Phe Val Glu Lys Cys Cys Lys Ala Asp Asp Lys Glu Thr Cys Phe
            580                    585                    590
Ala Glu Glu Gly Lys Lys Leu Val Ala Ala Ser Gln Ala Ala Leu Gly
        595                    600                    605
Leu
```

<210> 805

```
<211> 1356
<212> DNA
<213> Homo Sapiens

<400> 805
acaaacacca aggagtggag gtcagagtgt cacttttttg ttttctttt gaaagatcat      60
tcgagaaaca cgtcactgat ctccctgcg accatgtctt ccattaagat tgagtgtgtt      120
ttgccagaga actgccggtg tggtgagtct ccagtatggg aggaagtgtc caactctctg      180
ctctttgtag acattcctgc aaaaaaggtt tgccggtggg attcattcac caagcaagta      240
cagcgagtga ccatggatgc cccagtcagc tccgtggctc ttcgccagtc gggaggctat      300
gttgccacca ttggaacaaa gttctgtgct ttgaactgga agaacaatc agcagttgtc       360
ttggccacgg tggataacga caagaaaaac aatcgcttca atgatgggaa ggtggatccc      420
gccgggaggt actttgctgg caccatggct gaggaaacag ctccagcagt tcttgagcgg      480
caccaggggg ccctgtactc cctcttttcct gatcaccacg tgaaaaagta ctttgaccag      540
gtggacattt ccaatggttt ggattggtcg ctagaccaca aaatcttcta ttacattgac      600
agcctgtcct actccgtgga tgcctttgac tatgacctgc agacaggaca gatctccaac      660
cgcagaagtg tttacaagct agaaaaggaa gaacaaatcc cagatggaat gtgtattgat      720
gctgagggga agctctgggt ggcctgttac aatggaggaa gagtgattcg tttagatcct      780
gtgacaggga aaagacttca aactgtgaag ttgcctgttg ataaaacaac ttcatgctgc      840
tttggaggga agaattactc tgaaatgtat gtgacctgcg cccgggatgg gatggacccc      900
gagggtcttt tgaggcaacc tgaagctggt ggaattttca agataactgg tctgggggtc      960
aaaggaattg ctccctactc ctatgcggga tgaggacagg tcttctttcc tgccagaggg     1020
agctctgaag caactagag aattctgggc ctgaaatttc aatctagtta gaaagaaaaa       1080
tgaggcaatg atttattaa cagcgttaag ttttaattta caactttaa aaggcagagc        1140
atttttaaca aggggtgaca ggtggttttg ataacacact tataaggctt tctgtaaaag      1200
gtactataga agggcgaaga atcgttcaac tgtcaatcag cctcttgatt ctttgtaaat     1260
tgccagggtg ggtgggtaca tatctcttct tgattctgca tttcatactt aactatatta     1320
aagcttcaag gaacaataaa tagtaacctg gtaatg                               1356

<210> 806
<211> 299
<212> PRT
<213> Homo Sapiens

<400> 806
Met Ser Ser Ile Lys Ile Glu Cys Val Leu Pro Glu Asn Cys Arg Cys
1               5                   10                  15
Gly Glu Ser Pro Val Trp Glu Glu Val Ser Asn Ser Leu Leu Phe Val
            20                  25                  30
Asp Ile Pro Ala Lys Lys Val Cys Arg Trp Asp Ser Phe Thr Lys Gln
        35                  40                  45
Val Gln Arg Val Thr Met Asp Ala Pro Val Ser Ser Val Ala Leu Arg
    50                  55                  60
Gln Ser Gly Gly Tyr Val Ala Thr Ile Gly Thr Lys Phe Cys Ala Leu
65                  70                  75                  80
Asn Trp Lys Glu Gln Ser Ala Val Val Leu Ala Thr Val Asp Asn Asp
                85                  90                  95
Lys Lys Asn Asn Arg Phe Asn Asp Gly Lys Val Asp Pro Ala Gly Arg
            100                 105                 110
Tyr Phe Ala Gly Thr Met Ala Glu Glu Thr Ala Pro Ala Val Leu Glu
            115                 120                 125
Arg His Gln Gly Ala Leu Tyr Ser Leu Phe Pro Asp His His Val Lys
        130                 135                 140
Lys Tyr Phe Asp Gln Val Asp Ile Ser Asn Gly Leu Asp Trp Ser Leu
145                 150                 155                 160
```

```
Asp His Lys Ile Phe Tyr Tyr Ile Asp Ser Leu Ser Tyr Ser Val Asp
              165                 170                 175
Ala Phe Asp Tyr Asp Leu Gln Thr Gly Gln Ile Ser Asn Arg Arg Ser
              180                 185                 190
Val Tyr Lys Leu Glu Lys Glu Glu Gln Ile Pro Asp Gly Met Cys Ile
          195                 200                 205
Asp Ala Glu Gly Lys Leu Trp Val Ala Cys Tyr Asn Gly Gly Arg Val
          210                 215                 220
Ile Arg Leu Asp Pro Val Thr Gly Lys Arg Leu Gln Thr Val Lys Leu
225                 230                 235                 240
Pro Val Asp Lys Thr Thr Ser Cys Cys Phe Gly Gly Lys Asn Tyr Ser
              245                 250                 255
Glu Met Tyr Val Thr Cys Ala Arg Asp Gly Met Asp Pro Glu Gly Leu
              260                 265                 270
Leu Arg Gln Pro Glu Ala Gly Gly Ile Phe Lys Ile Thr Gly Leu Gly
          275                 280                 285
Val Lys Gly Ile Ala Pro Tyr Ser Tyr Ala Gly
          290                 295
```

```
          <210> 807
          <211> 1980
          <212> DNA
          <213> Homo Sapiens

          <400> 807
atgccaagta gtttgctgct agcaaccaga aaccaaatcc tgtctatgat gaactgttgg    60
tttttcttgtg ctcccaagaa cagacatgca gcagattgga acaaatatga tgaccgattg   120
atgaaagccg cggagagggg agatgtagaa aaagtttcct caatccttgc taaaaagggc   180
atcaatccag gcaaactaga tgtggaaggc agatctgcct tccatgttgt ggcctcaaag   240
gggaatcttg aatgtttgaa tgccatcctt atacatggag ttgatattac aaccagtgac   300
actgcaggaa gaaatgctct tcacttggct gcaaagtatg ggcatgcatt gtgtctacaa   360
aaacttctac agtacaattg tcccactgaa catgcagacc tgcaggaag aaccgcactt    420
catgacgcag caatggcaga ctgtccttcc agcatacagc tgctttgtga ccatggggcc   480
tccgtgaatg ccaaagatgt ggatgggcgg acaccgctgg ttctggctac tcagatgtgt   540
aggccagcaa tctgtcaact gctgatagat cgaggggcag agattaattc cagagacaaa   600
caaaacagaa ctgctctcat gcttggttgc gagtatggtt gtaaggatgc tgtagaagtc   660
ttacttaaaa atggtgctga tgtaagcctg ctggatgcct tgggccatga tagttcttac   720
tatgcaagaa ttggtgacaa tctggacatt ctaactttat tgaagactgc gtcagaaaat   780
accaacaaag ggagagaact ttggaagaaa ggaccatctt tacagcagcg aaatttgccg   840
tacatgctag atgaagtaaa tgtgaagtca agtcagaggg agcatcgaaa cattcaggag   900
ctggagattg aaaatgaaga tttgaaagac aggttgagaa aaattcagca agaacagaga   960
atattactgg ataaagtcaa tggtttacaa ctacagctga atgaggaagt gatggttgct  1020
gatgatctgg aaagtgagaa agaaaagctg aagtctcttt tggtggctaa agaaaagcaa  1080
catgaagaaa gcctaagaac tattgagtct ctgaaaaaca gatttaaata ttttgagtgt  1140
acttccccag gggtgccagc ccacatgcaa agcaggtcta tgttaagacc actggagcta  1200
tcattaccca atcaaacctc atattctgaa aatgacctct aaagaaaga gttagaagca   1260
atgagaactt tctgcgaatc agccaaacaa gaccgcctca agctccagaa cggagtggcg  1320
cacaaggtgg ctgagtgcaa agctttagga ctagaatgtg aacgcatcaa ggaggactct  1380
gatgagcaga taaagcagtt agaagacgca ttgaaagatg tgcagaagag aatgtatgag  1440
tcggaaggta aagtaaaaca aatgcagaca cactttcttg cccttaaaga gcacctgacc  1500
agtgaagcag ctatagggaa tcacagacta atggaggagc tgaaggatca gttgaaggac  1560
atgaaagcga aatatgaggg tgcatcagca gaagtgggaa aactgcgaaa ccaaatcaaa  1620
caaaatgagc tgctagtaga acagtttagg agagatgaag gcaagctggt ggaagagaat  1680
aagcgattgc agaaggaact cagtatgtgt gaaacggagc gagacaagaa aggaaggagg  1740
gttgctgagg tggaaggcca ggtaaaggaa ctcttagcaa agctgacctt gtcagttcca  1800
```

-404-

actgaaaaat ttgagagcat gaagagctta ttatcaagcg aagtaaatga gaaggtgaaa   1860
aaaattggag agacagaaag agagtatgaa aaatcactta ctgaaatcag acagttaagg   1920
agagagcttg agaattgtaa gcgccaaact tcctcagcat gtcaagccag aggagcatga   1980

<210> 808
<211> 659
<212> PRT
<213> Homo Sapiens

<400> 808

```
Met Pro Ser Ser Leu Leu Leu Ala Thr Arg Asn Gln Ile Leu Ser Met
1               5                   10                  15
Met Asn Cys Trp Phe Ser Cys Ala Pro Lys Asn Arg His Ala Ala Asp
            20                  25                  30
Trp Asn Lys Tyr Asp Asp Arg Leu Met Lys Ala Ala Glu Arg Gly Asp
            35                  40                  45
Val Glu Lys Val Ser Ser Ile Leu Ala Lys Lys Gly Ile Asn Pro Gly
    50                  55                  60
Lys Leu Asp Val Glu Gly Arg Ser Ala Phe His Val Val Ala Ser Lys
65                  70                  75                  80
Gly Asn Leu Glu Cys Leu Asn Ala Ile Leu Ile His Gly Val Asp Ile
            85                  90                  95
Thr Thr Ser Asp Thr Ala Gly Arg Asn Ala Leu His Leu Ala Ala Lys
            100                 105                 110
Tyr Gly His Ala Leu Cys Leu Gln Lys Leu Leu Gln Tyr Asn Cys Pro
            115                 120                 125
Thr Glu His Ala Asp Leu Gln Gly Arg Thr Ala Leu His Asp Ala Ala
            130                 135                 140
Met Ala Asp Cys Pro Ser Ser Ile Gln Leu Leu Cys Asp His Gly Ala
145                 150                 155                 160
Ser Val Asn Ala Lys Asp Val Asp Gly Arg Thr Pro Leu Val Leu Ala
            165                 170                 175
Thr Gln Met Cys Arg Pro Ala Ile Cys Gln Leu Leu Ile Asp Arg Gly
            180                 185                 190
Ala Glu Ile Asn Ser Arg Asp Lys Gln Asn Arg Thr Ala Leu Met Leu
            195                 200                 205
Gly Cys Glu Tyr Gly Cys Lys Asp Ala Val Glu Val Leu Leu Lys Asn
    210                 215                 220
Gly Ala Asp Val Ser Leu Leu Asp Ala Leu Gly His Asp Ser Ser Tyr
225                 230                 235                 240
Tyr Ala Arg Ile Gly Asp Asn Leu Asp Ile Leu Thr Leu Leu Lys Thr
            245                 250                 255
Ala Ser Glu Asn Thr Asn Lys Gly Arg Glu Leu Trp Lys Lys Gly Pro
            260                 265                 270
Ser Leu Gln Gln Arg Asn Leu Pro Tyr Met Leu Asp Glu Val Asn Val
            275                 280                 285
Lys Ser Ser Gln Arg Glu His Arg Asn Ile Gln Glu Leu Glu Ile Glu
    290                 295                 300
Asn Glu Asp Leu Lys Asp Arg Leu Arg Lys Ile Gln Gln Glu Gln Arg
305                 310                 315                 320
Ile Leu Leu Asp Lys Val Asn Gly Leu Gln Leu Gln Leu Asn Glu Glu
            325                 330                 335
Val Met Val Ala Asp Asp Leu Glu Ser Glu Lys Glu Lys Leu Lys Ser
            340                 345                 350
Leu Leu Val Ala Lys Glu Lys Gln His Glu Glu Ser Leu Arg Thr Ile
```

```
            355                  360                  365
Glu Ser Leu Lys Asn Arg Phe Lys Tyr Phe Glu Cys Thr Ser Pro Gly
        370              375              380
Val Pro Ala His Met Gln Ser Arg Ser Met Leu Arg Pro Leu Glu Leu
385              390              395                  400
Ser Leu Pro Asn Gln Thr Ser Tyr Ser Glu Asn Asp Leu Leu Lys Lys
                405              410              415
Glu Leu Glu Ala Met Arg Thr Phe Cys Glu Ser Ala Lys Gln Asp Arg
            420              425              430
Leu Lys Leu Gln Asn Gly Val Ala His Lys Val Ala Glu Cys Lys Ala
        435              440              445
Leu Gly Leu Glu Cys Glu Arg Ile Lys Glu Asp Ser Asp Glu Gln Ile
    450              455              460
Lys Gln Leu Glu Asp Ala Leu Lys Asp Val Gln Lys Arg Met Tyr Glu
465              470              475                  480
Ser Glu Gly Lys Val Lys Gln Met Gln Thr His Phe Leu Ala Leu Lys
                485              490              495
Glu His Leu Thr Ser Glu Ala Ala Ile Gly Asn His Arg Leu Met Glu
            500              505              510
Glu Leu Lys Asp Gln Leu Lys Asp Met Lys Ala Lys Tyr Glu Gly Ala
        515              520              525
Ser Ala Glu Val Gly Lys Leu Arg Asn Gln Ile Lys Gln Asn Glu Leu
    530              535              540
Leu Val Glu Gln Phe Arg Arg Asp Glu Gly Lys Leu Val Glu Glu Asn
545              550              555                  560
Lys Arg Leu Gln Lys Glu Leu Ser Met Cys Glu Thr Glu Arg Asp Lys
                565              570              575
Lys Gly Arg Arg Val Ala Glu Val Glu Gly Gln Val Lys Glu Leu Leu
            580              585              590
Ala Lys Leu Thr Leu Ser Val Pro Thr Glu Lys Phe Glu Ser Met Lys
        595              600              605
Ser Leu Leu Ser Ser Glu Val Asn Glu Lys Val Lys Lys Ile Gly Glu
    610              615              620
Thr Glu Arg Glu Tyr Glu Lys Ser Leu Thr Glu Ile Arg Gln Leu Arg
625              630              635                  640
Arg Glu Leu Glu Asn Cys Lys Arg Gln Thr Ser Ser Ala Cys Gln Ala
                645              650              655
Arg Gly Ala
```

```
        <210> 809
        <211> 1725
        <212> DNA
        <213> Homo Sapiens

        <400> 809
        tttctttgtt aagtcgttcc ctctacaaag gacttcctag tgggtgtgaa aggcagcggt    60
        ggccacagag gcggcggaga gatggccttc agcggttccc aggctcccta cctgagtcca   120
        gctgtcccct tttctgggac tattcaagga ggtctccagg acggacttca gatcactgtc   180
        aatgggaccg ttctcagctc cagtggaacc aggtttgctg tgaactttca gactggcttc   240
        agtggaaatg acattgcctt ccacttcaac cctcggtttg aagatggagg gtacgtggtg   300
        tgcaacacga ggcagaacgg aagctggggg cccgaggaga ggaagacaca catgcctttc   360
        cagaagggga tgccctttga cctctgcttc ctggtgcaga gctcagattt caaggtgatg   420
        gtgaacggga tcctcttcgt gcagtacttc accgcgtgc ccttccaccg tgtggacacc   480
        atctccgtca atggctctgt gcagctgtcc tacatcagct tccagaaccc ccgcacagtc   540
```

```
cctgttcagc ctgccttctc cacggtgccg ttctcccagc ctgtctgttt cccacccagg    600
cccagggggc gcagacaaaa acctcccggc gtgtggcctg ccaacccggc tcccattacc    660
cagacagtca tcccacacagt gcagagcgcc cctggacaga tgttctctac tcccgccatc    720
ccacctatga tgtaccccca ccccgcctat ccgatgcctt tcatcaccac cattctggga    780
gggctgtacc catccaagtc catcctcctg tcaggcactg tcctgcccag tgctcagagg    840
ttccacatca acctgtgctc tgggaaccac atcgccttcc acctgaaccc ccgttttgat    900
gagaatgctg tggtccgcaa cacccagatc gacaactcct gggggtctga ggagcgaagt    960
ctgccccgaa aaatgccctt cgtccgtggc cagagcttct cagtgtggat cttgtgtgaa   1020
gctcactgcc tcaaggtggc cgtggatggt cagcacctgt ttgaatacta ccatcgcctg   1080
aggaacctgc ccaccatcaa cagactggaa gtggggggcg acatccagct gacccatgtg   1140
cagacatagg cggcttcctg ccctgggggc cggggctgg ggtgtggggc agtctgggtc   1200
ctctcatcat ccccacttcc caggcccagc ctttccaacc ctgcctggga tctgggcttt   1260
aatgcagagg ccatgtcctt gtctggtcct gcttctggct acagccaccc tggaacggag   1320
aaggcagctg acgggggattg ccttcctcag ccgcagcagc acctggggct ccagctgctg   1380
gaatcctacc atcccaggag gcaggcacag ccagggagag gggaggagtg ggcagtgaag   1440
atgaagcccc atgctcagtc ccctcccatc ccccacgcag ctccacccca gtcccaagcc   1500
accagctgtc tgctcctggt gggaggtggc ctcctcagcc cctcctctct gacctttaac   1560
ctcactctca ccttgcaccg tgcaccaacc cttcacccct cctggaaagc aggcctgatg   1620
gcttcccact ggcctccacc acctgaccag agtgttctct tcagaggact ggctccttc   1680
ccagtgtcct taaaataaag aaatgaaaat gcttgttggc acatt           1725
```

```
        <210> 810
        <211> 355
        <212> PRT
        <213> Homo Sapiens

        <400> 810
Met Ala Phe Ser Gly Ser Gln Ala Pro Tyr Leu Ser Pro Ala Val Pro
1               5                   10                  15
Phe Ser Gly Thr Ile Gln Gly Gly Leu Gln Asp Gly Leu Gln Ile Thr
            20                  25                  30
Val Asn Gly Thr Val Leu Ser Ser Ser Gly Thr Arg Phe Ala Val Asn
        35                  40                  45
Phe Gln Thr Gly Phe Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro
    50                  55                  60
Arg Phe Glu Asp Gly Gly Tyr Val Val Cys Asn Thr Arg Gln Asn Gly
65                  70                  75                  80
Ser Trp Gly Pro Glu Glu Arg Lys Thr His Met Pro Phe Gln Lys Gly
            85                  90                  95
Met Pro Phe Asp Leu Cys Phe Leu Val Gln Ser Ser Asp Phe Lys Val
            100                 105                 110
Met Val Asn Gly Ile Leu Phe Val Gln Tyr Phe His Arg Val Pro Phe
        115                 120                 125
His Arg Val Asp Thr Ile Ser Val Asn Gly Ser Val Gln Leu Ser Tyr
    130                 135                 140
Ile Ser Phe Gln Asn Pro Arg Thr Val Pro Val Gln Pro Ala Phe Ser
145                 150                 155                 160
Thr Val Pro Phe Ser Gln Pro Val Cys Phe Pro Pro Arg Pro Arg Gly
            165                 170                 175
Arg Arg Gln Lys Pro Pro Gly Val Trp Pro Ala Asn Pro Ala Pro Ile
            180                 185                 190
Thr Gln Thr Val Ile His Thr Val Gln Ser Ala Pro Gly Gln Met Phe
        195                 200                 205
Ser Thr Pro Ala Ile Pro Pro Met Met Tyr Pro His Pro Ala Tyr Pro
    210                 215                 220
```

-407-

```
Met Pro Phe Ile Thr Thr Ile Leu Gly Gly Leu Tyr Pro Ser Lys Ser
225                 230                 235                 240
Ile Leu Leu Ser Gly Thr Val Leu Pro Ser Ala Gln Arg Phe His Ile
                245                 250                 255
Asn Leu Cys Ser Gly Asn His Ile Ala Phe His Leu Asn Pro Arg Phe
                260                 265                 270
Asp Glu Asn Ala Val Val Arg Asn Thr Gln Ile Asp Asn Ser Trp Gly
            275                 280                 285
Ser Glu Glu Arg Ser Leu Pro Arg Lys Met Pro Phe Val Arg Gly Gln
            290                 295                 300
Ser Phe Ser Val Trp Ile Leu Cys Glu Ala His Cys Leu Lys Val Ala
305                 310                 315                 320
Val Asp Gly Gln His Leu Phe Glu Tyr Tyr His Arg Leu Arg Asn Leu
                325                 330                 335
Pro Thr Ile Asn Arg Leu Glu Val Gly Gly Asp Ile Gln Leu Thr His
                340                 345                 350
Val Gln Thr
        355


        <210> 811
        <211> 1022
        <212> DNA
        <213> Homo Sapiens

        <400> 811
gcctgtgggt ctccattgcc cagcttttgc ctgcactctt gcctgctgcc ctgaccagag     60
tcatcatgtc tcttgagcag aagagtcagc actgcaagcc tgaggaaggc gttgaggccc    120
aagaagaggc cctgggcctg gtgggtgcac aggctcctac tactgaggag caggaggctg    180
ctgtctcctc ctcctctcct ctggtcctgg gcaccctgga gaaagtgcct gctgctgagt    240
cagcagatcc tccccagagt cctcagggag cctctgcctt acccactacc atcagcttca    300
cttgctggag gcaacccaat gagggttcca gcagccaaga agaggaggag gccagcacct    360
cgcctgacgc agagtccttg ttccgagaag cactcagtaa caaggtggat gagttggctc    420
attttctgct ccgcaagtat cgagccaagg agctggtcac aaaggcagaa atgctggaga    480
gagtcatcaa aaattacaag cgctgctttc ctgtgatctt cggcaaagcc tccgagtccc    540
tgaagatgat ctttggcatt gacgtgaagg aagtggaccc cgccagcaac acctacaccc    600
ttgtcacctg cctgggcctt tcctatgatg gcctgctggg taataatcag atctttccca    660
agacaggcct cctgataatc gtcctgggca caattgcaat ggagggcgac agcgcctctg    720
aggaggaaat ctgggaggag ctgggtgtga tggggggtgta tgatgggagg gagcacactg    780
tctatgggga gcccaggaaa ctgctcaccc aagattgggt gcaggaaaac tacctggagt    840
accggcaggt accggcagt aatcctgcgc gctatgagtt cctgtggggt ccaagggctc    900
tggctgaaac cagctatgtg aaagtcctgg agcatgtggt caggtcaat gcaagagttc    960
gcattgccta cccatccctg cgtgaagcag ctttgttaga ggaggaagag ggagtctgag   1020
ca                                                                  1022

        <210> 812
        <211> 317
        <212> PRT
        <213> Homo Sapiens

        <400> 812
Met Ser Leu Glu Gln Lys Ser Gln His Cys Lys Pro Glu Glu Gly Val
1               5                   10                  15
Glu Ala Gln Glu Glu Ala Leu Gly Leu Val Gly Ala Gln Ala Pro Thr
            20                  25                  30
Thr Glu Glu Gln Glu Ala Ala Val Ser Ser Ser Ser Pro Leu Val Leu
```

-408-

```
          35                    40                    45
Gly Thr Leu Glu Lys Val Pro Ala Ala Glu Ser Ala Asp Pro Pro Gln
          50                    55                    60
Ser Pro Gln Gly Ala Ser Ala Leu Pro Thr Thr Ile Ser Phe Thr Cys
65                    70                    75                    80
Trp Arg Gln Pro Asn Glu Gly Ser Ser Ser Gln Glu Glu Glu Glu Ala
                    85                    90                    95
Ser Thr Ser Pro Asp Ala Glu Ser Leu Phe Arg Glu Ala Leu Ser Asn
                    100                   105                   110
Lys Val Asp Glu Leu Ala His Phe Leu Leu Arg Lys Tyr Arg Ala Lys
          115                   120                   125
Glu Leu Val Thr Lys Ala Glu Met Leu Glu Arg Val Ile Lys Asn Tyr
          130                   135                   140
Lys Arg Cys Phe Pro Val Ile Phe Gly Lys Ala Ser Glu Ser Leu Lys
145                   150                   155                   160
Met Ile Phe Gly Ile Asp Val Lys Glu Val Asp Pro Ala Ser Asn Thr
                    165                   170                   175
Tyr Thr Leu Val Thr Cys Leu Gly Leu Ser Tyr Asp Gly Leu Leu Gly
                    180                   185                   190
Asn Asn Gln Ile Phe Pro Lys Thr Gly Leu Leu Ile Ile Val Leu Gly
          195                   200                   205
Thr Ile Ala Met Glu Gly Asp Ser Ala Ser Glu Glu Glu Ile Trp Glu
          210                   215                   220
Glu Leu Gly Val Met Gly Val Tyr Asp Gly Arg Glu His Thr Val Tyr
225                   230                   235                   240
Gly Glu Pro Arg Lys Leu Leu Thr Gln Asp Trp Val Gln Glu Asn Tyr
                    245                   250                   255
Leu Glu Tyr Arg Gln Val Pro Gly Ser Asn Pro Ala Arg Tyr Glu Phe
                    260                   265                   270
Leu Trp Gly Pro Arg Ala Leu Ala Glu Thr Ser Tyr Val Lys Val Leu
          275                   280                   285
Glu His Val Val Arg Val Asn Ala Arg Val Arg Ile Ala Tyr Pro Ser
          290                   295                   300
Leu Arg Glu Ala Ala Leu Leu Glu Glu Glu Glu Gly Val
305                   310                   315
```

```
          <210> 813
          <211> 5175
          <212> DNA
          <213> Homo Sapiens

          <400> 813
          gctgctgctg cagtgggaca ggtggcggcg accggcggcg tccgaggaga tttaatccag      60
          agactgactt cactatagaa cccacagttg tatcaatggt tggggaaaga tagtggcaac     120
          aggcaaagga gaaacagctc tgacatacaa agaaaatgag tatgctaaag ccaagtgggc     180
          ttaaggcccc caccaagatc ctgaagcctg gaagcacagc tctgaagaca cctacggctg     240
          ttgtagctcc agtagaaaaa accatatcca gtgaaaaagc atcaagcact ccatcatctg     300
          agactcagga ggaatttgtg gatgactttc gagttgggga gcgagtttgg gtgaatggaa     360
          ataagcctgg atttatccag tttcttggag aaacccagtt gcaccaggc cagtgggctg     420
          gaattgtttt agatgaaccc ataggcaaga cgatggttc ggtggcagga gttcggtatt     480
          tccagtgtga acctttaaag ggcatattta cccgaccttc aaagttaaca aggaaggtgc     540
          aagcagaaga tgaagctaat ggcctgcaga caacgcccgc tcccgagct acttcaccgc     600
          tgtgcacttc tacggccagc atggtgtctt cctccccctc cacccttca aacatccctc     660
          agaaaccatc acagccagca gcaaaggaac cttcagctac gcctccgatc agcaaccta     720
          caaaaactgc cagtgaatct atctccaacc tttcagaggc tggctcaatc aagaaaggag     780
```

-409-

```
aaagagagct caaaatcgga gacagagtat tggttggtgg cactaaggct ggtgtagtcc    840
ggtttcttgg ggagaccgac tttgccaagg gggagtggtg tggcgtggag ttagatgagc    900
cacttgggaa gaatgatggc gctgttgctg gaacaaggta ttttcagtgt caacccaaat    960
atggcttgtt cgctcctgtc cacaaagtta ccaagattgg cttcccttcc actacaccag   1020
ccaaagccaa ggccaacgca gtgaggcgag tgatggcgac cacgtccgcc agcctgaagc   1080
gcagcccttc tgcctcttcc ctcagctcca tgagctcagt ggcctcctct gtgagcagca   1140
ggcccagtcg gacaggacta ttgactgaaa cctcctcccg ttacgccagg aagatctccg   1200
gtaccactgc cctccaggag gccctgaagg agaagcagca gcacattgag cagctgctgg   1260
cggaacggga tctggagagg gcggaggtgg ccaaggccac gagccacgtg ggggagatag   1320
agcaggagct agctctggcc cgggacggac atgaccagca tgtcctggaa ttggaagcca   1380
aaatggacca gctgcgaaca atggtggaag ctgctgacag ggagaaggtg gagcttctca   1440
accagcttga gaggagaaaa aggaaggttg aggaccttca gttccgggtt gaagaagaat   1500
caattaccaa aggtgatctt gaggtggcta cagtttcaga aaagtcacgt ataatggaac   1560
tggagaaaga cctagcattg agagtacagg aagtagctga gctccgaaga aggctagagt   1620
ccaataagcc tgctggggat gtggacatgt cactttccct tttgcaagag ataagctctt   1680
tgcaagaaaa gttagaagtc acccgtactg accaccagag agaaataact tctctgaagg   1740
agcattttgg agcccgggaa gaaactcatc agaaggagat aaaggctctg tataccgcca   1800
cggaaaagct ttccaaagag aacgagtcat tgaaaagcaa gctggagcat gccaacaaag   1860
agaactcaga tgtgatagct ctatggaagt ccaaactgga gactgccatc gcatcccacc   1920
agcaggcgat ggaagaactg aaggtatctt tcagcaaagg gcttggaaca gagacggcag   1980
aatttgctga actaaaaaca caaatagaga aaatgagact agattaccaa cacgaaatag   2040
aaaatttgca gaatcaacaa gactctgaac gggctgccca tgctaaagag atggaagcct   2100
tgagggctaa actgatgaaa gttattaaag aaaaggaaaa cagtctggaa gccatcaggt   2160
cgaaactgga caaagcagaa gaccagcatc tcgtagaaat ggaagacacg ttaaacaaat   2220
tacaggaagc tgaaataaag gtaaaggagc tagaggtact gcaagccaaa tgcaatgaac   2280
aaaccaaggt tattgataat tttacatcac agctcaaggc tactgaagaa aagctcttgg   2340
atcttgatgc acttcggaaa gccagttccg aaggtaaatc ggaaatgaag aaacttagac   2400
agcagcttga ggcagctgag aaacagatta aacatttaga gattgaaaag aatgctgaaa   2460
gtagcaaggc tagtagcatt accagagagc tccaggggag agagctaaag cttactaacc   2520
ttcaggaaaa tttgagtgaa gtcagtcaag tgaaagagac tttggaaaaa gaacttcaga   2580
ttttgaaaga aaagtttgct gaagcttcag aggaggcagt ctctgttcag agaagtatgc   2640
aagaaactgt aaataagtta caccaaaagg aggaacagtt taacatgctg tcttctgact   2700
tggagaagct gagagaaaac ttagcagata tggaggcaaa atttagagag aaagatgaga   2760
gagaagagca gctgataaag gcaaaggaaa aactggaaaa tgacattgca gaaataatga   2820
agatgtcagg agataactct tctcagctga caaaaatgaa cgatgaatta cgtctgaaag   2880
aaagagatgt agaagaatta cagctaaaac ttacaaaggc taatgaaaat gcaagttttc   2940
tgcaaaaaag tattgaggac atgactgtca aagctgaaca gagccagcaa gaagcagcta   3000
aaaagcatga ggaagaaaag aaagaattgg agaggaaatt gtcggacctg aaaagaaaa   3060
tggaaacaag ccacaaccag tgtcaggagc tgaaagccag gtatgagaga gccacttctg   3120
agacaaaaac caagcatgaa gaaatcctac agaacctcca gaagacgctg ctggacacag   3180
aggacaagct gaagggcgca cgggaggaga acagtggctt gctgcaggag ctggaggagc   3240
tgagaaagca agccgagaaa gccaaagctg ctcaaacagc ggaagatgcc atgcagataa   3300
tggaacagat gaccaaagag aagactgaga ctctggcctc cttggaggac accagcaaa   3360
caaatgcaaa actacagaat gaattggaca cacttaaaga aaacaacttg aaaaatgtgg   3420
aagagctgaa caaatcaaaa gaactcctga ctgtagagaa tcaaaaaatg gaagaattta   3480
ggaaagaaat agaaacccta aagcaggcag cagctcagaa gtcccagcag ctttcagcgt   3540
tgcaagaaga gaacgttaaa cttgctgagg agctggggag aagcagggac gaagtcacaa   3600
gtcatcaaaa gctggaagaa gaaagatctg tgctcaataa tcagttgtta gaaatgaaaa   3660
aaagagaatc caagttcata aaagacgcag atgaagagaa agcttccttg cagaaatcca   3720
tcagtataac tagtgcctta ctcacagaaa aggatgccga gctggagaaa ctgagaaatg   3780
aggtcacagt gctcaggggg aaaaacgcct ctgccaagtc cttgcattca gttgttcaga   3840
ctctagagtc tgataaggtg aagctcgagc tcaaggtaaa gaacttggag cttcaactca   3900
aagaaaacaa gaggcagctc agcagctcct caggtaatac agacactcag gcagacgagg   3960
atgaaagagc ccaggagagt cagattgatt tcctaaattc agtaatagtg gaccttcaaa   4020
ggaagaatca agacctcaag atgaaggtgg agatgatgtc agaagcagcc ctgaatggga   4080
```

```
acggggatga cctaaacaat tatgacagtg atgatcagga gaaacagtcc aagaagaaac    4140
ctcgcctctt ctgtgacatt tgtgactgct ttgatctcca cgacacagag gattgtccta    4200
cccaggcaca gatgtcagag gaccctcccc attccacaca ccatggcagt cggggtgagg    4260
aacgcccata ctgtgaaatc tgtgagatgt ttggacactg ggccaccaac tgcaatgacg    4320
acgaaacctt ctgatgaagc ctccagtgga gaactgggct tgctcagacg cactcgcatt    4380
gacacaacgt aacaccagca ttgtgtgtgc agacttcagg agaactcatg ttatttttta    4440
acccgtcaa caaatctagg aaaatatttt gatcttcaac aaattgccct ttagtctccc    4500
cgtatgagtt agaataataa atatttagta ggtgagcttt tcacctcgaa ttttgttttc    4560
ttgatttta cgtttgaaga cattgcacca gatgcsatta catttattgg cccccgacc    4620
ttgtagaaaa accctaccc tcacaatacc ttatttaagt aactttaaat tatgccgtta    4680
cttttcatat ttgcactaag atatttccag gctgcatttg tatatttaga ttttttggtt    4740
aagctttgac actggaatga gttgaaaaaa tgtgccattt tgcattttca tctactcatt    4800
taaagtattt tattcttatt caaagaaata tctgagctct ttgcactacc tgttatcagt    4860
agtgccttta cttcaggctt gataatactt aggtgtgatt ataaaatcat gaagcaggta    4920
aagggagggg caagcccca aactgctgtg gggacatttt ataatctata tgctgcaccc    4980
acttaatcta ctgtggtgtt ttgtttatta gttttgcata atttcagctt ctatatattg    5040
tatgtatata ttttttaaaa atctatattt tgggaaaaaa acatacacaa tgtgtctttc    5100
tttttggaca tttacctttt tgaaaaagaa aacacttaaa atgatcatta ggacataaca    5160
gactagggaa ttccg                                                      5175
```

```
        <210> 814
        <211> 1392
        <212> PRT
        <213> Homo Sapiens

        <400> 814
Met Ser Met Leu Lys Pro Ser Gly Leu Lys Ala Pro Thr Lys Ile Leu
1               5                   10                  15
Lys Pro Gly Ser Thr Ala Leu Lys Thr Pro Thr Ala Val Val Ala Pro
            20                  25                  30
Val Glu Lys Thr Ile Ser Ser Glu Lys Ala Ser Ser Thr Pro Ser Ser
        35                  40                  45
Glu Thr Gln Glu Glu Phe Val Asp Asp Phe Arg Val Gly Glu Arg Val
    50                  55                  60
Trp Val Asn Gly Asn Lys Pro Gly Phe Ile Gln Phe Leu Gly Glu Thr
65                  70                  75                  80
Gln Phe Ala Pro Gly Gln Trp Ala Gly Ile Val Leu Asp Glu Pro Ile
            85                  90                  95
Gly Lys Asn Asp Gly Ser Val Ala Gly Val Arg Tyr Phe Gln Cys Glu
            100                 105                 110
Pro Leu Lys Gly Ile Phe Thr Arg Pro Ser Lys Leu Thr Arg Lys Val
        115                 120                 125
Gln Ala Glu Asp Glu Ala Asn Gly Leu Gln Thr Thr Pro Ala Ser Arg
    130                 135                 140
Ala Thr Ser Pro Leu Cys Thr Ser Thr Ala Ser Met Val Ser Ser Ser
145                 150                 155                 160
Pro Ser Thr Pro Ser Asn Ile Pro Gln Lys Pro Ser Gln Pro Ala Ala
            165                 170                 175
Lys Glu Pro Ser Ala Thr Pro Pro Ile Ser Asn Leu Thr Lys Thr Ala
            180                 185                 190
Ser Glu Ser Ile Ser Asn Leu Ser Glu Ala Gly Ser Ile Lys Lys Gly
        195                 200                 205
Glu Arg Glu Leu Lys Ile Gly Asp Arg Val Leu Val Gly Gly Thr Lys
```

```
           210                    215                    220
Ala Gly Val Val Arg Phe Leu Gly Glu Thr Asp Phe Ala Lys Gly Glu
225                    230                    235                    240
Trp Cys Gly Val Glu Leu Asp Glu Pro Leu Gly Lys Asn Asp Gly Ala
                   245                    250                    255
Val Ala Gly Thr Arg Tyr Phe Gln Cys Gln Pro Lys Tyr Gly Leu Phe
                   260                    265                    270
Ala Pro Val His Lys Val Thr Lys Ile Gly Phe Pro Ser Thr Thr Pro
                   275                    280                    285
Ala Lys Ala Lys Ala Asn Ala Val Arg Arg Val Met Ala Thr Thr Ser
290                    295                    300
Ala Ser Leu Lys Arg Ser Pro Ser Ala Ser Ser Leu Ser Ser Met Ser
305                    310                    315                    320
Ser Val Ala Ser Ser Val Ser Ser Arg Pro Ser Arg Thr Gly Leu Leu
                   325                    330                    335
Thr Glu Thr Ser Ser Arg Tyr Ala Arg Lys Ile Ser Gly Thr Thr Ala
                   340                    345                    350
Leu Gln Glu Ala Leu Lys Glu Lys Gln Gln His Ile Glu Gln Leu Leu
                   355                    360                    365
Ala Glu Arg Asp Leu Glu Arg Ala Glu Val Ala Lys Ala Thr Ser His
370                    375                    380
Val Gly Glu Ile Glu Gln Glu Leu Ala Leu Ala Arg Asp Gly His Asp
385                    390                    395                    400
Gln His Val Leu Glu Leu Glu Ala Lys Met Asp Gln Leu Arg Thr Met
                   405                    410                    415
Val Glu Ala Ala Asp Arg Glu Lys Val Glu Leu Leu Asn Gln Leu Glu
                   420                    425                    430
Glu Glu Lys Arg Lys Val Glu Asp Leu Gln Phe Arg Val Glu Glu Glu
                   435                    440                    445
Ser Ile Thr Lys Gly Asp Leu Glu Val Ala Thr Val Ser Glu Lys Ser
                   450                    455                    460
Arg Ile Met Glu Leu Glu Lys Asp Leu Ala Leu Arg Val Gln Glu Val
465                    470                    475                    480
Ala Glu Leu Arg Arg Arg Leu Glu Ser Asn Lys Pro Ala Gly Asp Val
                   485                    490                    495
Asp Met Ser Leu Ser Leu Leu Gln Glu Ile Ser Ser Leu Gln Glu Lys
                   500                    505                    510
Leu Glu Val Thr Arg Thr Asp His Gln Arg Glu Ile Thr Ser Leu Lys
                   515                    520                    525
Glu His Phe Gly Ala Arg Glu Glu Thr His Gln Lys Glu Ile Lys Ala
                   530                    535                    540
Leu Tyr Thr Ala Thr Glu Lys Leu Ser Lys Glu Asn Glu Ser Leu Lys
545                    550                    555                    560
Ser Lys Leu Glu His Ala Asn Lys Glu Asn Ser Asp Val Ile Ala Leu
                   565                    570                    575
Trp Lys Ser Lys Leu Glu Thr Ala Ile Ala Ser His Gln Gln Ala Met
                   580                    585                    590
Glu Glu Leu Lys Val Ser Phe Ser Lys Gly Leu Gly Thr Glu Thr Ala
                   595                    600                    605
Glu Phe Ala Glu Leu Lys Thr Gln Ile Glu Lys Met Arg Leu Asp Tyr
610                    615                    620
Gln His Glu Ile Glu Asn Leu Gln Asn Gln Asp Ser Glu Arg Ala
625                    630                    635                    640
Ala His Ala Lys Glu Met Glu Ala Leu Arg Ala Lys Leu Met Lys Val
                   645                    650                    655
```

-412-

```
Ile Lys Glu Lys Glu Asn Ser Leu Glu Ala Ile Arg Ser Lys Leu Asp
            660                 665                 670
Lys Ala Glu Asp Gln His Leu Val Glu Met Glu Asp Thr Leu Asn Lys
            675                 680                 685
Leu Gln Glu Ala Glu Ile Lys Val Lys Glu Leu Glu Val Leu Gln Ala
            690                 695                 700
Lys Cys Asn Glu Gln Thr Lys Val Ile Asp Asn Phe Thr Ser Gln Leu
705                 710                 715                 720
Lys Ala Thr Glu Glu Lys Leu Leu Asp Leu Asp Ala Leu Arg Lys Ala
                725                 730                 735
Ser Ser Glu Gly Lys Ser Glu Met Lys Lys Leu Arg Gln Gln Leu Glu
            740                 745                 750
Ala Ala Glu Lys Gln Ile Lys His Leu Glu Ile Glu Lys Asn Ala Glu
            755                 760                 765
Ser Ser Lys Ala Ser Ser Ile Thr Arg Glu Leu Gln Gly Arg Glu Leu
    770                 775                 780
Lys Leu Thr Asn Leu Gln Glu Asn Leu Ser Glu Val Ser Gln Val Lys
785                 790                 795                 800
Glu Thr Leu Glu Lys Glu Leu Gln Ile Leu Lys Glu Lys Phe Ala Glu
                805                 810                 815
Ala Ser Glu Glu Ala Val Ser Val Gln Arg Ser Met Gln Glu Thr Val
            820                 825                 830
Asn Lys Leu His Gln Lys Glu Glu Gln Phe Asn Met Leu Ser Ser Asp
            835                 840                 845
Leu Glu Lys Leu Arg Glu Asn Leu Ala Asp Met Glu Ala Lys Phe Arg
    850                 855                 860
Glu Lys Asp Glu Arg Glu Glu Gln Leu Ile Lys Ala Lys Glu Lys Leu
865                 870                 875                 880
Glu Asn Asp Ile Ala Glu Ile Met Lys Met Ser Gly Asp Asn Ser Ser
                885                 890                 895
Gln Leu Thr Lys Met Asn Asp Glu Leu Arg Leu Lys Glu Arg Asp Val
            900                 905                 910
Glu Glu Leu Gln Leu Lys Leu Thr Lys Ala Asn Glu Asn Ala Ser Phe
            915                 920                 925
Leu Gln Lys Ser Ile Glu Asp Met Thr Val Lys Ala Glu Gln Ser Gln
    930                 935                 940
Gln Glu Ala Ala Lys Lys His Glu Glu Glu Lys Lys Glu Leu Glu Arg
945                 950                 955                 960
Lys Leu Ser Asp Leu Glu Lys Lys Met Glu Thr Ser His Asn Gln Cys
                965                 970                 975
Gln Glu Leu Lys Ala Arg Tyr Glu Arg Ala Thr Ser Glu Thr Lys Thr
            980                 985                 990
Lys His Glu Glu Ile Leu Gln Asn Leu Gln Lys Thr Leu Leu Asp Thr
            995                 1000                1005
Glu Asp Lys Leu Lys Gly Ala Arg Glu Glu Asn Ser Gly Leu Leu Gln
    1010                1015                1020
Glu Leu Glu Glu Leu Arg Lys Gln Ala Glu Lys Ala Lys Ala Ala Gln
1025                1030                1035                104
Thr Ala Glu Asp Ala Met Gln Ile Met Glu Gln Met Thr Lys Glu Lys
                1045                1050                1055
Thr Glu Thr Leu Ala Ser Leu Glu Asp Thr Lys Gln Thr Asn Ala Lys
            1060                1065                1070
Leu Gln Asn Glu Leu Asp Thr Leu Lys Glu Asn Asn Leu Lys Asn Val
            1075                1080                1085
Glu Glu Leu Asn Lys Ser Lys Glu Leu Leu Thr Val Glu Asn Gln Lys
```

```
         1090              1095                 1100
Met Glu Glu Phe Arg Lys Glu Ile Glu Thr Leu Lys Gln Ala Ala Ala
1105              1110                 1115                  112
Gln Lys Ser Gln Gln Leu Ser Ala Leu Gln Glu Glu Asn Val Lys Leu
              1125                 1130                  1135
Ala Glu Glu Leu Gly Arg Ser Arg Asp Glu Val Thr Ser His Gln Lys
              1140                 1145                  1150
Leu Glu Glu Glu Arg Ser Val Leu Asn Asn Gln Leu Leu Glu Met Lys
           1155                 1160                  1165
Lys Arg Glu Ser Lys Phe Ile Lys Asp Ala Asp Glu Glu Lys Ala Ser
        1170                 1175                  1180
Leu Gln Lys Ser Ile Ser Ile Thr Ser Ala Leu Leu Thr Glu Lys Asp
1185              1190                 1195                  120
Ala Glu Leu Glu Lys Leu Arg Asn Glu Val Thr Val Leu Arg Gly Glu
              1205                 1210                  1215
Asn Ala Ser Ala Lys Ser Leu His Ser Val Val Gln Thr Leu Glu Ser
           1220                 1225                  1230
Asp Lys Val Lys Leu Glu Leu Lys Val Lys Asn Leu Glu Leu Gln Leu
        1235                 1240                  1245
Lys Glu Asn Lys Arg Gln Leu Ser Ser Ser Ser Gly Asn Thr Asp Thr
     1250                 1255                  1260
Gln Ala Asp Glu Asp Glu Arg Ala Gln Glu Ser Gln Ile Asp Phe Leu
1265              1270                 1275                  128
Asn Ser Val Ile Val Asp Leu Gln Arg Lys Asn Gln Asp Leu Lys Met
              1285                 1290                  1295
Lys Val Glu Met Met Ser Glu Ala Ala Leu Asn Gly Asn Gly Asp Asp
              1300                 1305                  1310
Leu Asn Asn Tyr Asp Ser Asp Asp Gln Glu Lys Gln Ser Lys Lys Lys
        1315                 1320                  1325
Pro Arg Leu Phe Cys Asp Ile Cys Asp Cys Phe Asp Leu His Asp Thr
     1330                 1335                  1340
Glu Asp Cys Pro Thr Gln Ala Gln Met Ser Glu Asp Pro Pro His Ser
1345              1350                 1355                  136
Thr His His Gly Ser Arg Gly Glu Glu Arg Pro Tyr Cys Glu Ile Cys
              1365                 1370                  1375
Glu Met Phe Gly His Trp Ala Thr Asn Cys Asn Asp Asp Glu Thr Phe
              1380                 1385                  1390
```

```
        <210> 815
        <211> 647
        <212> DNA
        <213> Homo Sapiens

        <400> 815
ccacgcgtcc gcctccgtt  ccctcttccg cttgcgctgc cgcaggacca tggccaacct   60
ggagcgcacc ttcatcgcca tcaagccgga cggcgtgcag cgcggcctgg tgggcgagat  120
catcaagcgc ttcgagcaga agggattccg cctcgtggcc atgaagttcc tccgggcctc  180
tgaagaacac ctgaagcagc actacattga cctgaaagac cgaccattct tccctgggct  240
ggtgaagtac atgaactcag ggccggttgt ggccatggtc tgggaggggc tgaacgtggt  300
gaagacaggc cgagtgatgc ttggggagac caatccagca gattcaaagc caggcaccat  360
tcgtggggac ttctgcattc aggttggcag gaacatcatt catggcagtg attcagtaaa  420
aagtgctgaa aaagaaatca gcctatggtt taagcctgaa gaactggttg actacaagtc  480
ttgtgctcat gactgggtct atgaataaga ggtggacaca acagcagtct ccttcagcac  540
ggcgtggtgt gtccctggac acagctcttc attccattga cttagaggca acaggattga  600
tcattctttt atagagcata tttgccaata aagctttttgg aagccgg                647
```

```
        <210> 816
        <211> 152
        <212> PRT
        <213> Homo Sapiens

        <400> 816
Met Ala Asn Leu Glu Arg Thr Phe Ile Ala Ile Lys Pro Asp Gly Val
1               5                   10                  15
Gln Arg Gly Leu Val Gly Glu Ile Ile Lys Arg Phe Glu Gln Lys Gly
            20                  25                  30
Phe Arg Leu Val Ala Met Lys Phe Leu Arg Ala Ser Glu Glu His Leu
        35                  40                  45
Lys Gln His Tyr Ile Asp Leu Lys Asp Arg Pro Phe Phe Pro Gly Leu
    50                  55                  60
Val Lys Tyr Met Asn Ser Gly Pro Val Val Ala Met Val Trp Glu Gly
65                  70                  75                  80
Leu Asn Val Val Lys Thr Gly Arg Val Met Leu Gly Glu Thr Asn Pro
                85                  90                  95
Ala Asp Ser Lys Pro Gly Thr Ile Arg Gly Asp Phe Cys Ile Gln Val
            100                 105                 110
Gly Arg Asn Ile Ile His Gly Ser Asp Ser Val Lys Ser Ala Glu Lys
        115                 120                 125
Glu Ile Ser Leu Trp Phe Lys Pro Glu Glu Leu Val Asp Tyr Lys Ser
    130                 135                 140
Cys Ala His Asp Trp Val Tyr Glu
145                 150
```